



Univerzitet Crne Gore
Prirodno-matematički fakultet

Džordža Vašingtona b.b.
1000 Podgorica, Crna Gora

tel: +382 (0)20 245 204

fax: +382 (0)20 245 204

www.pmf.ac.me

Broj: 2562

Datum: 27.10.2021

UNIVERZITET CRNE GORE
-SENATU-
-CENTAR ZA DOKTORSKE STUDIJE-

U prilogu akta dostavljamo Vam Odluku sa XC elektronske sjednice Vijeća PMF-a.



v.f. dekana

Prof. dr. Miljan Bigović



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Datum: 23. 10. 2022. god

Na osnovu člana 64 Statuta Univerziteta Crne Gore, na LXXXIX sjednici Vijeća održanoj 18.10.2022. godine, Vijeće je utvrdilo

PREDLOG

ODLUKE

I

Predlaže se Centru za doktorske studije i Senatu UCG da imenuje komisiju za ocjenu podobnosti doktorske teze i kandidata pod nazivom "Memristori-od nanočestice do uređaja" kandidata mr Arsa Ivanovića u sastavu:

1. Dr Predrag Miranović, redovni profesor PMF-a (naučna oblast: Fizika kondenzovanog stanja materije)
2. Dr Borko Vujičić, redovni profesor PMF-a (naučna oblast: Fizika kondenzovanog stanja materije)
3. Dr Goran Karapetrov, redovni profesor, Drexel Univerzitet, Filadelfija, SAD, (naučna oblast: Fizika čvrstog stanja),
4. Dr Abdelrahim Hassanien, ko-mentor, Institut „Jožef Stefan“, Slovenija (naučna oblast: Fizika kondenzovanog stanja) i
5. Prof. dr Jovan Mirković, redovni profesor PMF-a (naučna oblast: Fizika kondenzovanog stanja), mentor.

II

Odluka se dostavlja senatu I Centru za doktorske studije Univerziteta Crne Gore na dalje postupanje.

v.f. DEKAN –a
Miljan Bigović
Prof. dr Miljan Bigović



PRIJAVA TEME DOKTORSKE DISERTACIJE

OPŠTI PODACI O DOKTORANDU	
Titula, ime i prezime	Mr Arso Ivanović
Fakultet	Prirodno-matematički fakultet
Studijski program	fizika
Broj indeksa	1/19
Ime i prezime roditelja	Vladimir Ivanović
Datum i mjesto rođenja	14.5.1993. Podgorica
Adresa prebivališta	Zlatica 37, 81000 Podgorica
Telefon	+38267156939
E-mail	ivanovic.arso@gmail.com
BIOGRAFIJA I BIBLIOGRAFIJA	
Obrazovanje	-Master studije fizike, Univerzitet Hajdelberg, Njemačka, decembar 2017 -Bečelor studije fizike, PMF, UCG, januar 2015
Radno iskustvo	- frilens pisac – Physics World magazine, 2019 - pripravnik, Centar za eko-toksikološka ispitivanja, Podgorica 2018 - asistent za laboratorijske vježbe iz fizike, Univerzitet Hajdeleberg, 2016 - 2017
Popis radova	
NASLOV PREDLOŽENE TEME	
Na službenom jeziku	Memristori – od nanočestice do uređaja
Na engleskom jeziku	Memristive nanoscale phenomena – from single nanoparticle to scalable devices
Obrazloženje teme	<p>Oblast neuromorfno inženjeringa ima potencijal za realizaciju efikasnijih, biološki motivisanih računskih uređaja. Evoluirala je kasnih 80-tih godina kroz realizaciju neuronom inspirisanih uređaja kao npr. adaptirajuća integrisana elektronska mrežnjača. Memristivni uređaji su glavne komponente neuromorfni kola jer transport naelektrisanja u njima ima karakter sličan transportu jona u biološkim sinapsama. Ovi uređaji se mogu integrisati u <i>cross-bar arrays</i>.</p> <p>Važan aspekt je sparivanje detekcije i obrade signala, koji je ostao neistražen kod ovih uređaja jer su fizički mehanizmi na nanoskali i dalje nepoznati. Još jedan problem je statistička varijacija u prebacivačkim svojstvima memristivnih uređaja, što ih ne čini komercijalnim.</p> <p>Korišćenjem <i>gating</i> efekta može se manipulirati pregrštom memristivnih stanja kako bi se razotkrile njihove sposobnosti i primjena u neuromorfnom inženjeringu.</p>
Pregled istraživanja	<p>U rad su uključeni master studenti Stefan Šćepanović i Rajko Dragojević, koji su boravili na Institutu Jožef Štefan od maja do kraja jula 2022. god.</p>

Istraživanja se vrše pomoću mikroskopa atomske sile (AFM) i skenirajućeg tunelskog mikroskopa (STM). U navedenom periodu, rad u laboratoriji je bio posvećen upoznavanju i ovladavanju kompleksnih mikroskopa, u cilju samostalnog upravljanja. Mjerenja su započeta i dobijeni prvi eksperimentalni rezultati, posle čijeg kompletiranja se može dobiti osnova za naučnu publikaciju.

Pored učenja rukovanja STM i AFM, ovladano je kriogenim tehnikama za STM, koristeći tečni azot i helijum, i postižući temperaturu od 4.2 K. Takođe je ovladano tehnikama čišćenja uzorka – *sputtering* i *annealing*, zatim tehnikama ultra-visokog vakuuma, kao i upravljanjem mikroskopima uz pomoć softvera, i uz određeni manuelni dio upravljanja. Stefan Šćepanović je analizirao podatke mjerenja pomoću programa MATLAB.

Prva mjerenja su protekla uspješno, dok glavna mjerenja tek slijede na novim uzorcima i tipovima (šiljcima) naručenim od kompanije Rocky Mountain Nanotechnology iz SAD-a, i od kompanije Phasis iz Švajcarske. Pomoću STM-a, fabrikovane su nanotrake grafena na supstratu od zlata (111), i time je nadograđen uzorak. Nanotrake smo vizuelizovali pomoću STM-a.

Da bi se izbjegla formacija frustriranih filamenata i sitnih otvora, memristivni uređaji se pažljivo pripremaju korišćenjem ustanova za mikrofabrikaciju u Kilu, u Njemačkoj.

Cilj i hipoteze

Cilj ovog istraživanja je da se kroz proučavanje fizičkih svojstava novoosmišljenih konfiguracija memristora, dode do one konfiguracije sa najoptimalnijim djejtvom koja oponaša funkciju sinapse u ljudskom mozgu. Takav memristor bi se dalje inkorporirao u memristorske mreže kao neuromorfne mreže, koje kao jedan od novih principa računanja doprinose razvoju kognitivne obrade podataka, analize velikih podataka i sistema vještačke inteligencije male snage baziranih na mašinskom učenju i Internetu stvari.

Materijali, metode i plan istraživanja

Istraživanja se vrše pomoću skenirajućeg tunelskog mikroskopa i mikroskopa atomske sile. Električna karakterizacija uzorka uključuje strujno-naponsku spektroskopiju i imaging (vizuelizaciju) struje, i vrši se pomoću AFM-a.

Pri mjerenju AFM-om, postoje dva moda: *tapping* i kontaktni mod. Sonda AFM-a na vrhu sadrži tip (šiljak), koji je od platine, prečnika manjeg od 10 nm.

Uzorci koji se ispituju su memristori koji se sastoje od dvije elektrode i izolatorskog sloja između njih. U izolator ili takozvanu memristivnu matricu (silicijum dioksid ili titanijum dioksid) su uronjene nanočestice legura srebro-platina i srebro-zlato. U tu matricu se inkorporiraju i nanotrake grafena koje se fabrikuju na supstratu od zlata. Taj dodatak uzorku ne služi samo da se pojača memristivno dejstvo i ograniči statistička varijansa električnog prebacivanja između ON i OFF stanja, već i da se ostvari jako sparivanje sa plazmoničnim efektima u uređajima memristivnih (neuromorfnih) mreža.

U nastavku istraživanja koristićemo memristivni tip na nanotrakama grafena fabrikovanim na supstratu zlata (111). Zatim će se postaviti ista memristivna matrica između električnih kontakata. U obje konfiguracije uzorak će se osvijetliti laserom i biće proučavan optički odziv, pod pretpostavkom da laserska svjetlost modulira memristivno djejtvo uređaja.

Očekivani naučni doprinos

Proučavanjem memristivnog dejstva nano-uređaja pomoću mikroskopa atomske sile i njegovom modulacijom pomoću svjetlosti lasera težiće se da se dobije što stabilniji uređaj – najbolja verzija vještačke sinapse - koji bi dalje bio inkorporiran u energetske, brže i pametnije neuromorfne mreže.

Spisak objavljenih radova kandidata

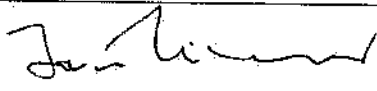
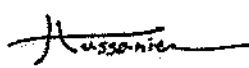
(dati spisak objavljenih radova kandidata)

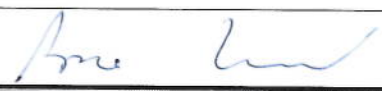
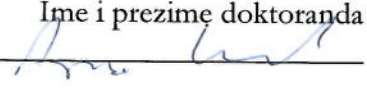
Popis literature

- [1] C. Mead, Proc. IEEE. 78 (1990) 1629–1636.
- [2] S.H. Tan et al, APL Mater. 6 (2018) 120901.
- [3] L.O. Chua, IEEE Trans. Circuit Theory. 18 (1971) 507–519.
- [4] W. Gerstner, W. Kistler, Spiking neural models: single neurons, populations, plasticity, 2002.
- [5] O. Lupan et al, Small. 13 (2017) 1602868.
- [6] O. Lupan et al, B Chem. 224 (2016) 434–448.
- [7] D. Ielmini et al, Microelectron. Eng. 190 (2018) 44–53.
- [8] T. Chang et al, IEEE Circuits Syst. Mag. 13 (2013) 56–73.
- [9] K.A. Buchanan et al, Front. Synaptic Neurosci. 2 (2010) 1–5.
- [10] G. Bi, M. Poo et al, J. Neurosci. 18 (1998) 1–9.
- [11] Y. Zhao et al, J. Nanosci. Nanotechnol. 18 (2018) 8003–8015.
- [12] H. Jeong et al, J. Phys. D: Appl. Phys. 52 (2018) 1–28.
- [13] Sun, W. et al, Nat Commun 10, 3453 (2019).
- [14] W. Lu, Y. Xiong, **A. Hassaniien**, W. Zhao, M. Zheng and L. Chen, Nano lett. 9, 4, 1668, (2009).
- [15] W. Lu, J. Zhang, Y. S. Li, Qi Chen, X. Wang, **A. Hassaniien**, and L. Chen, Phys. Chem. C, 116, 12, 7158 (2012).
- [16] A. Ković, A. Žnidaršič, A. Jesih, A. Mrzel, M. Gabersček, **A. Hassaniien**, Nanoscale research letters, 7, 5671, (2012).
- [17] A. Znidarsic, A. Kaskela, P. Laiho, M. Gaberscek, Y. Ohno, A. G. Nasibulin, E. I. Kauppinen and **A. Hassaniien**, Phys Chem. C, 117, 25, 13324, (2013).
- [18] A. V. Talyzin, S. Luzan, I. V. Anoshkin, A. G. Nasibulin, E. I. Kauppinen, A. Dzwilewski, A. Kreta, J. Jamnik, **A. Hassaniien**, A Lundstedt and H. Grennberg, Phys Chem C, 118,12, 6504, (2014).
- [19] M. H. Hassan, M. H. Alkordi and **A. Hassaniien**, Mater. lett., 246, 13(2019).
- [20] A. Vahl, N. Carstens, T. Strunskus, F. Faupel and **A. Hassaniien**, Sci Rep 9, 17367 (2019).
- [21] N. Carstens, A. Vahl, O. Gronenberg, T. Strunskus, L. Kienle, F. Faupel and **A. Hassaniien**, Nanomaterials, In press (2021).

SAGLASNOST PREDLOŽENOG/IH MENTORA I DOKTORANDA SA PRIJAVOM

Odgovorno potvrđujem da sam saglasan sa temom koja se prijavljuje.

Prvi mentor	Prof. dr. Jovan Mirković	
Drugi mentor	Prof. dr Abdou Hassaniien	

Doktorand	Arso Ivanović	
IZJAVA		
Odgovorno izjavljujem da doktorsku disertaciju sa istom temom nisam prijavio/la ni na jednom drugom fakultetu.		
U Podgorici, 14. 10. 2022.		
		Ime i prezime doktoranda 

Na osnovu člana 33 Zakona o upravnom postupku ("Službeni list CG", br. 56/14, 20/15, 40/16 i 37/17), člana 115 Zakona o visokom obrazovanju ("Službeni list CG", br. 44/14, 52/14, 47/15, 40/16, 42/17, 71/17, 55/18, 3/19, 17/19, 47/19, 72/19, 74/20 104/21) i službene evidencije, a po zahtjevu studenta Ivanović Vladimir Arso, izdaje se

UVJERENJE O POLOŽENIM ISPITIMA

Student **Ivanović Vladimir Arso**, rođen **14-05-1993** godine u mjestu **Podgorica**, opština **Podgorica**, Republika **Crna Gora**, upisan je studijske **2019/2020** godine, u **I** godinu studija, kao student koji se **samofinansira** na **doktorske akademske studije**, studijski program **FIZIKA**, koji realizuje **PRIRODNO-MATEMATIČKI FAKULTET - Podgorica** Univerziteta Crne Gore u trajanju od **3 (tri)** godine sa obimom **180** ECTS kredita.

Student je položio ispite iz sljedećih predmeta:

Redni broj	Semestar	Naziv predmeta	Ocjena	Uspjeh	Broj ECTS kredita
1.	1	EKSPERIMENTALNI METODI IZUČAVANJA NANOSTRUKTURA	"A"	(odličan)	10.00
2.	1	FIZIKA NANOMATERIJALA	"A"	(odličan)	10.00
3.	1	METODE FABRIKACIJE NANOSTRUKTURA	"A"	(odličan)	10.00
4.	1	VIŠI KURS KVANTNE MEHANIKE	"C"	(dobar)	10.00

Zaključno sa rednim brojem 4.

Ostvareni uspjeh u toku dosadašnjih studija je:

- srednja ocjena položenih ispita "A" (9.50)
- ukupan broj osvojenih ECTS kredita 40.00 ili 66.67%
- indeks uspjeha 6.33.

Uvjerenje se izdaje na osnovu službene evidencije, a u svrhu ostvarivanja prava na: (dječji dodatak, porodičnu penziju, invalidski dodatak, zdravstvenu legitimaciju, povlašćenu vožnju za gradski saobraćaj, studentski dom, studentski kredit, stipendiju, regulisanje vojne obaveze i slično).

Broj:
Podgorica, 27.10.2022 godine



29
SEKRETAR
Nataša Ivanović

УНИВЕРЗИТЕТ ЦРНЕ ГОРЕ

Цетински пут б.б.
П. фак 99
81000 ПОДГОРИЦА
ЦРНА ГОРА
ТЕЛЕФОНИ: (081) 241-777
241-888
Факс: (081) 242-301



UNIVERSITY OF MONTENEGRO

Cetinjski put b.b.
P.O. BOX 99
81 000 PODGORICA
MONTENEGRO
Phone: (+382) 81 241-777
241-888
Fax: (+382) 81 242-301

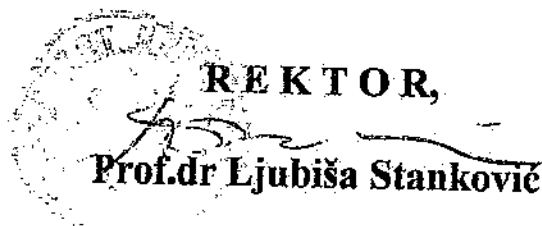
Број: 01-5379
Датум, 23.11.2006 г.

Ref: _____
Date, _____

Na osnovu člana 75 stav 2 Zakona o visokom obrazovanju (Sl.list RCG br. 60/03.) i člana 18 Statuta Univerziteta Crne Gore, Senat Univerziteta Crne Gore, na sjednici održanoj 23.11.2006. godine, donio je

ODLUKU O IZBORU U ZVANJE

Dr PREDRAG MIRANOVIĆ bira se u akademsko zvanje **redovni profesor** Univerziteta Crne Gore za predmet **Kvantna fizika** na **Prirodno-matematičkom fakultetu u Podgorici**.


REKTOR,
Prof.dr Ljubiša Stanković

Predrag Miranović -biografija-

Rođen sam 12 decembra 1966. godine u Podgorici, Crna Gora, gdje sam završio osnovnu školu i gimnaziju. Nakon odsluženja vojnog roka u JNA upisao sam 1986. godine studije fizike na Prirodno-matematičkom fakultetu Univerziteta Crne Gore. Studije sam završio u redovnom roku oktobra 1990. godine sa prosječnom ocjenom 9,63. Proglašen sam za najboljeg diplomiranog studenta Univerziteta Crne Gore za školsku 1989/90 i dobio Plaketu Univerziteta Crne Gore.

Odmah nakon završetka studija sam angažovan kao asistent-pripravnik na Univerzitetu Crne Gore. Upisao sam postdiplomske magistarske studije na Fizičkom fakultetu u Beogradu, i paralelno izvodio vježbe na Odsjeku za fiziku u Podgorici. Magistarski rad pod nazivom "NMR linije u visokotemperaturnim superprovodnicima" sam odbranio u oktobru 1993. godine. Kako bih se potpuno posvetio izradi doktorske disertacije u periodu 1993-1995 godine sam bio radno angažovan na Institutu za Fiziku u Zemu. Doktorsku disertaciju "Magneto-elastični efekti u anizotropnim superprovodnicima" pod mentorstvom Ljiljane Dobrosavljević-Grujić sam odbranio u martu 1996. godine na Fizičkom fakultetu u Beogradu. Rezultati iz doktorske disertacije su objavljeni u dva rada u časopisu Američkog fizičkog društva, Physical Review B. Na osnovu toga sam nagrađen od strane Crnogorske akademije nauka i umjetnosti nagradom iz fonda Petra Vukčevića za uspjeh u istraživačkom radu u periodu 1993-1995. Nakon odbrane doktorske disertacije, u junu 1996. godine sam izabran u zvanje docent za predmet *Kvantna Mehanika* na Univerzitetu Crne Gore.

Tokom ljeta 1996. godine sam započeo saradnju sa Vladimirom G. Koganom na problemu raspodjele magnetnog polja unutar borokarbidnih superprovodnika, a rad sam dovršio za vrijeme studijskih boravaka u Ames National Laboratory, Iowa, USA, tokom decembra 1996. i aprila 1997. godine. Dva rada, koja su proizašla tokom boravaka u Ajovi, su naišli na veoma dobar prijem kod međunarodne naučne javnosti i citirani su preko 100 puta. Na poziv profesora Kenza Mije u periodu jun 1997 – jun 1998 godine sam boravio na Univerzitetu u Tokiju, u zvanju *lecturer*. Nakon povratka iz Japana, boravio sam dva mjeseca na Oak Ridge National Laboratory, Tennessee, USA kod profesora D. K. Christena. Tamo sam dovršio rad na temu „Flux lattice symmetry in V3Si: Nonlocal effects in a high-kappa superconductor” koji je po ocjeni Editora zavrijedio da se predstavi u Physical Review Focus (izdanje od 24. juna 1999. godine). Nakon povratka iz USA radio sam na Institutu za Fiziku u Zemu u zvanju naučni saradnik. Na Univerzitet Crne Gore sam se vratio u ljeto 1999. godine. U zvanje vanredni profesor za predmet Kvantna fizika sam izabran 2001. godine. Na konkursu Japanskog društva za promociju nauke sam dobio postdoktorsku stipendiju koja mi je omogućila boravak na Univerzitetu u Okajami kod profesora Kazušige Mačide u periodu 2001-2003. Za vrijeme specijalizacije sam uspio da razvijem posebnu metodu za numeričko rješavanje mikroskopskih jednačina superprovodnosti koja je omogućila mnogo lakšu analizu velikog broja problema koji se tiču termodinamičkih i transportnih osobina superprovodnika.

Plodnu saradnju sa Univerzitetom u Okajami sam nastavio i nakon povratka na Univerzitet Crne Gore.

Nakon povratka iz Japana sam se, pored nauke i nastave, posvetio i drugim aktivnostima. U periodu 2004-2006 godine sam bio predsjednik Društva fizičara Srbije i Crne Gore. U oktobru 2006. godine sam izabran u zvanje redovni profesor. Vijeće Prirodno-matematičkog fakulteta me je izabralo za člana Nastavno-naučnog vijeća, odnosno Senata Univerziteta 2003 godine. Bio sam član Nacionalnog savjeta za naučno-istraživačku djelatnost. Od marta 2007 do avgusta 2008 godine obavljao sam funkciju prorektora za nastavu na Univerzitetu Crne Gore. U periodu 2008-2014 bio sam rektor Univerziteta Crne Gore. Za vanrednog člana Crnogorske akademije nauka i umjetnosti izabran sam u decembru 2008.

Školovanje:

1986-1990 BSc Fizika, Univerzitet Crne Gore, Prirodno-matematički fakultet

1990-1993 MSc Fizika, Univerzitet u Beogradu, Fizički fakultet

1993-1996 PhD Fizika, Univerzitet u Beogradu, Fizički fakultet
Doktorska disertacija *Magneto-elastični efekti u anizotropnim superprovodnicima*
Mentor: Ljiljana-Dobrosavljević-Grujić

Profesionalne pozicije:

1996-2001 Docent na Univerzitetu Crne Gore
1997-1998 Lecturer na Univerzitetu u Tokiju, Japan
1997-1999 Naučni saradnik, Institut za Fiziku, Zemun, Srbija
2001-2003 Stipendista Japanskog društva za promociju nauke na Univerzitetu u Okayami, Japan
2006- Redovni profesor na Univerzitetu Crne Gore
2004-2006 Predsjednik Društva fizičara Srbije i Crne Gore
2003- 2014 Član Senata Univerziteta Crne Gore
2007- 2008 Prorektor za nastavu Univerziteta Crne Gore
2007- 2010 Član Nacionalnog savjeta za naučno-istraživačku djelatnost.
2008- 2014 Rektor Univerziteta Crne Gore
2008- 2018 Vanredni član CANU
2018 - Redovni član CANU

Nagrade i stipendije:

- Plaketa Univerziteta Crne Gore kao najbolji diplomirani student Univerziteta za školsku 1989/90.
- Nagrada CANU iz fonda Petra Vukčevića za uspjeh u istraživačkom radu u periodu 1993-1995.

- Postdoktorska stipendija stipendija Japanskog društva za promociju nauke za period 2001-2003

Studijski boravci:

1996 (Decembar)	Ames National Laboratory, Ames, Iowa, USA (prof. V. G. Kogan)
1997 (April)	Ames National Laboratory, Ames, Iowa, USA (prof. V. G. Kogan)
1997-1998	Faculty of engineering, University of Tokio, Japan (prof. K. Miya)
1998 (Avgust)	Oak Ridge National Laboratory, Tennessee, USA (prof. D. K. Christen)
2001-2003	Department of Physics, Okayama University, Japan, (prof. K. Machida)
2004 (Januar)	Department of Physics, Okayama University, Japan, (prof. K. Machida)
2006 (Januar)	Department of Physics, Okayama University, Japan, (prof. K. Machida)
2007 (Januar)	Department of Physics, Okayama University, Japan, (prof. K. Machida)
2008 (Januar)	Department of Physics, Okayama University, Japan, (prof. K. Machida)

Publikacije:

Koautor sam u 40 radova objavljenih u renomiranim naučnim časopisima (koji su na SCI listi) kao što su časopisi Američkog fizičkog društva (Physical Review Letters, Physical Review B) i Japanskog fizičkog društva (Journal of Physical Society of Japan).

Spisak radova

1. Title: Zero bias conductance in d-wave superconductor/ferromagnet/d-wave superconductor trilayers
 Author(s): Popović, Z.; Miranović, P.; Zikić R.
 Source: PHYSICA STATUS SOLIDI B Volume: Issue: Article Number: 1700554
 Published: 2018
2. Title: Anisotropy of spin polarized transport in ferromagnet/d-wave superconductor bilayer: Role of small exchange field
 Author(s): Popović, Z.; Miranović, P.
 Source: PROGRESS OF THEORETICAL AND EXPERIMENTAL PHYSICS Volume Issue:
 Article Number:
 To Be Published: 2018
3. Title: Generic first order orientation transition of vortex lattice in type II superconductors
 Author(s): Suzuki, M. Kenta; Inoue, Kenji; Miranović, Predrag; Ichioka, Masanori; Machida, Kazushige
 Source: JOURNAL OF THE PHYSICAL SOCIETY OF JAPAN Volume: 79 Issue: 1 Article Number: 013702
 Published: 2010
4. Title: Field-angle-dependent specific heat measurements and gap determination of a heavy fermion superconductor URu2Si2
 Author(s): Yano, K.; Sakakibara, T.; Tayama, T.; Yokoyama, M.; Amitsuka, H.; Homma, Y.; Miranović, P.; Ichioka, M.; Tsutsumi, Y.; Machida, K.

Source: PHYSICAL REVIEW LETTERS Volume: 1 Issue: 1 Article Number: 017004
Published: 2008

5. Title: Low energy excitations in the mixed state of the anisotropic s-wave superconductor CeRu2

Author(s): Yamada, Atsushi; Sakakibara, Toshiro; Custers, Jeroen; Hedo, Masato; Ōnuki, Yoshichika; Miranović, Predrag; Machida, Kazushige

Source: JOURNAL OF THE PHYSICAL SOCIETY OF JAPAN Volume: 76 Issue: 12 Article Number: 123704 Published: 2007

6. Title: Electronic thermal conductivity in a superconducting vortex state

Author(s): Adachi, H.; Miranovic, P.; Ichioka, M.; Machida, K.

Source: PHYSICA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS Volume: 463
Pages: 36-39 Published: 2007

7. Title: Quasiclassical calculation of the quasiparticle thermal conductivity in a mixed state

Author(s): Adachi, Hiroto; Miranović, Predrag; Ichioka, Masanori; Machida, Kazushige

Source: JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS Volume: 310 Issue: 2
Pages: 640-642 Part: Part 1 Published: 2007

8. Title: Quasi-classical calculation of the mixed-state thermal conductivity in s- and d-wave superconductors

Author(s): Adachi, Hiroto; Miranović, Predrag; Ichioka, Masanori; Machida, Kazushige

Source: JOURNAL OF THE PHYSICAL SOCIETY OF JAPAN Volume: 76 Issue: 6 Article Number: 064708 Published: 2007

9. Title: Effect of field-dependent core size on reversible magnetization of high-kappa superconductors

Author(s): Kogan, V. G.; Prozorov, R.; Bud'ko, S. L.; Canfield, P. C.; Thompson, J. R.; Karpinski, J.; Zhigadlo, N. D.; Miranović, P.

Source: PHYSICAL REVIEW B Volume: 74 Issue: 18 Article Number: 184521 Published: 2006

10. Title: Ubiquitous V-shape density of states in a mixed state of clean limit type II superconductors

Author(s): Nakai, N.; Miranović, P.; Ichioka, M.; Hess, H. F.; Uchiyama, K.;

Nishimori, H.; Kaneko, S.; Nishida, N.; Machida, K.

Source: PHYSICAL REVIEW LETTERS Volume: 97 Issue: 14 Article Number: 147001
Published: 2006

11. Title: Basal-plane magnetic anisotropies of high-k d-wave superconductors in a mixed state: A quasiclassical approach

Author(s): Adachi, Hiroto; Miranović, Predrag; Ichioka, Masanori; Machida, Kazushige

Source: JOURNAL OF THE PHYSICAL SOCIETY OF JAPAN Volume: 75 Issue: 8 Article Number: 084716 Published: 2006

12. Title: Specific heat and low-lying excitations in the mixed state for a type-II superconductor

Author(s): Nakai, N.; Miranović, P.; Ichioka, M.; Machida, K.

Source: PHYSICAL REVIEW B Volume: 73 Issue: 17 Article Number: 172501 Published: 2006

13. Title: Theory of gap-node detection by angle-resolved specific heat measurement

Author(s): Miranovic, P.; Ichioka, M.; Machida, K.; Nakai, N.

Source: JOURNAL OF PHYSICS-CONDENSED MATTER Volume: 17 Issue: 50 Pages: 7971-7980 Published: 2005

14. Title: Theoretical study on the field dependence of the zero energy density of states in an anisotropic gap superconductors

Author(s): Nakai, N.; Miranović, P.; Ichioka, M.; Machida, K.

Source: JOURNAL OF PHYSICS AND CHEMISTRY OF SOLIDS Volume: 66 Issue: 8-9 Pages: 1362-1364 Published: 2005

15. Title: Field-angle-dependent specific heat in the unconventional heavy-fermion superconductor CeCoIn₅

Author(s): Aoki, H.; Sakakibara, T.; Shishido, H.; Settai, R.; Ōnuki, Y.; Miranović, P.; Machida, K.

Source: PHYSICA B-CONDENSED MATTER Volume: 359 Pages: 410-412 Published: 2005

16. Title: Anisotropic diamagnetic response in type-II superconductors with gap and Fermi-surface anisotropies

Author(s): Adachi, H.; Miranović, P.; Ichioka, M.; Machida, K.

Source: PHYSICAL REVIEW LETTERS Volume: 94 Issue: 6 Article Number: 067007 Published: 2005

17. Title: Electronic state around vortex in a two-band superconductor

Author(s): Ichioka, Masanori; Machida, Kazushige; Nakai, Noriyuki; Miranović, Predrag

Source: PHYSICAL REVIEW B Volume: 70 Issue: 14 Article Number: 144508 Published: 2004

18. Title: Field dependence of the zero-energy density of states around vortices in an anisotropic-gap superconductor

Author(s): Nakai, N.; Miranović, P.; Ichioka, M.; Machida, K.

Source: PHYSICAL REVIEW B Volume: 70 Issue: 10 Article Number: 100503 Published: 2004

19. Title: Effects of nonmagnetic scatterers on the local density of states around a vortex in s-wave superconductors

Author(s): Miranović, P.; Ichioka, M.; Machida, K.

Source: PHYSICAL REVIEW B Volume: 70 Issue: 10 Article Number: 104510 Published: 2004

20. Title: Field-angle dependence of the zero-energy density of states in the unconventional heavy-fermion superconductor CeCoIn₅

Author(s): Aoki, H.; Sakakibara, T.; Shishido, H.; Settai, R.; Onuki, Y.; Miranović, P.; Machida, K.

Source: JOURNAL OF PHYSICS-CONDENSED MATTER Volume: 16 Issue: 3 Pages: L13-L19 Published: 2004

21. Title: Low temperature specific heat in anisotropic superconductors

Author(s): Dobrosavljević-Grujić, L.; Miranović, P.

Source: PHYSICA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS Volume: 397 Issue: 3-4 Pages: 117-122 Published: 2003

22. Title: Orientational field dependence of low-lying excitations in the mixed state of unconventional superconductors

Author(s): Miranović, P.; Nakai, N.; Ichioka, M.; Machida, K.

- Source: PHYSICAL REVIEW B Volume: 68 Issue: 5 Article Number: 052501 Published: 2003
23. Title: Microscopic study of low-kappa type-II superconductors
Author(s): Miranović, P.; Nakai, N.; Ichioka, M.; Machida, K.
Source: PHYSICA B-CONDENSED MATTER Volume: 329 Pages: 1382-1383 Part: Part 2
Published: 2003
24. Title: Theoretical study on vortex lattices in tetragonal superconductors
Author(s): Nakai, Noriyuki; Miranović, Predrag; Ichioka, Masanori; Machida, Kazushige
Source: PHYSICA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS Volume: 388
Pages: 677-678 Published: 2003
25. Title: Thermodynamics and magnetic field profiles in low-kappa type-II superconductors
Author(s): Miranović, P.; Machida, K.
Source: PHYSICAL REVIEW B Volume: 67 Issue: 9 Article Number: 092506 Published: 2003
26. Title: Theoretical studies on vortices in unconventional and conventional superconductors
Author(s): Machida K, Ichioka M, Miranovic P, et al.
Source: ACTA PHYSICA POLONICA B Volume: 34 Issue: 2 Pages: 545-548 Published: 2003
27. Title: Anisotropy of the upper critical field in superconductors with anisotropic gaps: Anisotropy parameters of MgB2
Author(s): Miranović, Predrag; Machida, Kazushige; Kogan, Vladimir G.
Source: JOURNAL OF THE PHYSICAL SOCIETY OF JAPAN Volume: 72 Issue: 2 Pages: 221-224 Published: 2003
28. Title: Anisotropy of the superconducting state properties and phase diagram of MgB2 by torque magnetometry on single crystals
Author(s): Angst, M.; Puzniak, R.; Wisniewski, A.; Roos, J.; Keller, H.; Miranović, P.; Jun, J.; Kazakov, S. M.; Karpinski, J.
Source: PHYSICA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS Volume: 385 Issue: 1-2 Pages: 143-153 Published: 2003
29. Title: Reentrant vortex lattice transformation in fourfold symmetric superconductors
Author(s): Nakai, N.; Miranović, P.; Ichioka, M.; Machida, K.
Source: PHYSICAL REVIEW LETTERS Volume: 89 Issue: 23 Article Number: 237004
Published: 2002
30. Title: Elastic moduli of vortex lattices within nonlocal London model
Author(s): Miranović, P.; Kogan, V. G.
Source: PHYSICAL REVIEW LETTERS Volume: 87 Issue: 13 Article Number: 137002
Published: 2001
31. Title: Nonlocal effects in angular dependence of in-plane magnetization of tetragonal superconductors
Author(s): Kogan, V. G.; Bud'ko, S. L.; Canfield, P. C.; Miranović, P.
Source: PHYSICAL REVIEW B Volume: 60 Issue: 18 Pages: R12577-R12580 Published: 1999
32. Title: Flux lattice symmetry in V3Si: Nonlocal effects in a high-kappa superconductor
Author(s): Yethiraj, M.; Christen, D. K.; Paul, D. Mck.; Miranovic, P.; Thompson, J. R.

Source: PHYSICAL REVIEW LETTERS Volume: 82 Issue: 25 Pages: 5112-5115
Published: 1999

33. Title: Irreversibility field analysis for $\text{Bi}_2\text{Sr}_2\text{Ca}_2\text{Cu}_3\text{O}_x$ tapes by using axial probe
Author(s): Rábara, M.; Yoshida, Y.; Takeuchi, T.; Miranović, P.; Miya, K.
Source: PHYSICA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS Volume: 305 Issue:
3-4 Pages: 285-292 Published: 1998

34. Title: Resistivity and magnetic susceptibility of single-crystal $\text{Lu}(\text{Ni}_{1-x}\text{Co}_x)_2\text{B}_2\text{C}$ ($x=0.0-0.09$)
Author(s): Cheon, K. O.; Fisher, I. R.; Kogan, V. G.; Canfield, P. C.; Miranović, P.;
Gammel, P. L.
Source: PHYSICAL REVIEW B Volume: 58 Issue: 10 Pages: 6463-6467 Published: 1998

35. Title: Vortex lattices in cubic superconductors
Author(s): Kogan, V. G.; Miranović, P.; Dobrosavljević-Grujić, Lj.; Pickett, W. E.;
Christen, D. K.
Source: PHYSICAL REVIEW LETTERS Volume: 79 Issue: 4 Pages: 741-744 Published:
1997

36. Title: Vortex lattice transitions in borocarbides
Author(s): Kogan, V. G.; Bullock, M.; Harmon, B.; Miranović, P.; Dobrosavljević;
Grujić, Lj.; Gammel, P. L.; Bishop, D. J.
Source: PHYSICAL REVIEW B Volume: 55 Issue: 14 Pages: R8693-R8696 Published:
1997

37. Title: GINZBURG-LANDAU THEORY OF VORTEX LATTICE STRUCTURE IN
DEFORMABLE ANISOTROPIC SUPERCONDUCTORS
Author(s): Miranović, P.; Dobrosavljević-Grujić, Lj.; Kogan, V. G.
Source: PHYSICAL REVIEW B Volume: 52 Issue: 17 Pages: 12852-12857 Published:
1995

38. Title: ON THE STRAIN-INDUCED VORTEX MASS IN ANISOTROPIC
SUPERCONDUCTORS
Author(s): Miranović, P.; Dobrosavljević-Grujić, Lj.
Source: PHYSICS LETTERS A Volume: 207 Issue: 3-4 Pages: 225-229 Published: 1995

39. Title: COMMENT ON THE TRANSCENDENTAL METHOD IN THE THEORY OF NEUTRON
SLOWING-DOWN
Author(s): Miranović, P.
Source: JOURNAL OF PHYSICS A-MATHEMATICAL AND GENERAL Volume: 28 Issue: 14
Pages: 4189-4190 Published: 1995

40. Title: VORTEX-INDUCED STRAIN AND FLUX LATTICES IN ANISOTROPIC
SUPERCONDUCTORS
Author(s): Kogan, V. G.; Bulaevskii, L. N.; Miranović, P.; Dobrosavljević-Grujić, L.
Source: PHYSICAL REVIEW B Volume: 51 Issue: 21 Pages: 15344-15350 Published:
1995

Ostala stručna aktivnost:

Recenzent za časopise *Physical Review Letters* i *Physical Review B*.

Lista aktivnosti kao recenzenta Američkog fizičkog društva:

Summary of papers sent from 2003 to 2008 to Dr. Miranovic (541154) to referee

Here is information on the papers that the American Physical Society asked you to review from 2003 to 2008 as translated from our database. Listed are the following: manuscript code at the time of the referral, the journal that asked you to review the paper, the date the referral was sent (via post or email), the date we officially received your report or response, the current title (possibly truncated) in TeX format (some characters may not display correctly), the current authors in TeX format (possibly truncated), your response as categorized by our internal conventions (possibly not reflecting the entirety of what you actually told us), and the current manuscript status, including the current journal and section type (if not published).

- BH10870** Journal: PRB Date of referral: 28Aug07 Date of response: 23Sep07
Contribution of the surface dipole to deformation of superconductors
Lipavsk\{y}, Pavel/Morawetz, Klaus/Kol\{a}\v{c}ek, Jan/Brandt, Ernst Helmut/Schreiber, Michael/
Response from referee: Report received
Current manuscript status: Published as [PRB 77, 014506 \(15 January 2008\)](#)
- BD10707** Journal: PRB Date of referral: 18May07 Date of response: 21May07
Phenomenological theory of spin excitations in La- and Y-based cuprates
Zhou, Tao/Wang, Z.D./
Response from referee: Too busy. Not referee's field
Current manuscript status: Published as [PRB 76, 094510 \(13 September 2007\)](#)
- LT10029B** Journal: PRB Date of referral: 20Feb07 Date of response: 06Mar07
Gapless Fermi surfaces in superconducting CeCoIn₅
Barzykin, Victor/Gor'kov, L.P./
Response from referee: Report received
Current manuscript status: Published as [PRB 76, 014509 \(18 July 2007\)](#)
- BVR1037** Journal: PRB Date of referral: 23Aug06 Date of response: 28Aug06
No-loss migration of preformed bosons at $T > T_{c\phi}$ in high-temperature superconductors
Kawabata, K./
Response from referee: Not referee's field
Current manuscript status: No longer under consideration (PRB Brief Report)
- BQR1033** Journal: PRB Date of referral: 28Jun06 Date of response: 24Jul06
Fermi-liquid effects in the Fulde-Ferrell-Larkin-Ovchinnikov state of two-dimensional d -wave superconductors
Vorontsov, Anton B./Graf, Matthias J./
Response from referee: Report received
Current manuscript status: Published as [PRB 74, 172504 \(14 November 2006\)](#)
- LP10703** Journal: PRL Date of referral: 29Mar06 Date of response: 03Apr06
Phase diagram of heavy fermion metal CeCoIn₅

- Shaginyan, V.R./Msezane, A.Z./Stephanovich, V.A./Kirichenko, E.V./*
 Response from referee: Too busy
 Current manuscript status: No longer under consideration (PRL)
7. **LK10814** Journal: PRL Date of referral: 13Feb06 Date of response: 22Feb06
Thin Ohmic or superconducting strip with an applied ac electric current
Brandt, Ernst Helmut/
 Response from referee: Report received
 Current manuscript status: Published as PRB 73, 092511 (23 March 2006)
8. **LE10603** Journal: PRL Date of referral: 07Dec05 Date of response: 23Dec05
Exotic pairing instability in heavy fermion superconductor CeCoIn₅
Bussmann-Holder, A./Simon, A./Bishop, A.R./
 Response from referee: Report received
 Current manuscript status: No longer under consideration (PRL)
9. **LH10288** Journal: PRL Date of referral: 16Aug05 Date of response: 29Aug05
Curie law, entropy excess, and superconductivity in heavy fermion metals and other strongly interacting Fermi liquids
Khodel, V.A./Zverev, M.V./Yakovenko, Victor M./
 Response from referee: Report received
 Current manuscript status: Published as PRL 95, 236402 (29 November 2005)
10. **BB10155** Journal: PRB Date of referral: 01Apr05 Date of response: 14Apr05
Anisotropic superconducting strip in an oblique magnetic field
Brandt, E.H./Mikitik, G.P./
 Response from referee: Report received
 Current manuscript status: Published as PRB 72, 024516 (12 July 2005)
11. **BB10155** Journal: PRB Date of referral: 14Feb05 Date of response: 02Mar05
Anisotropic superconducting strip in an oblique magnetic field
Brandt, E.H./Mikitik, G.P./
 Response from referee: Report received
 Current manuscript status: Published as PRB 72, 024516 (12 July 2005)
12. **BZ9316** Journal: PRB Date of referral: 03Jan05 Date of response: 20Jan05
Field-angle-resolved specific heat and thermal conductivity in the vortex phase of UPd₂Al₃
Thalmeier, P./Watanabe, T./Izawa, K./Matsuda, Y./
 Response from referee: Report received
 Current manuscript status: Published as PRB 72, 024539 (26 July 2005)
13. **BY1920** Journal: PRB Date of referral: 30Nov04 Date of response: 08Dec04
Zeeman splitting effects in the phase diagram of multiple-band superconductors
Dias, R.G./
 Response from referee: Report received
 Current manuscript status: Published as PRB 72, 012505 (14 July 2005)
14. **BU9168** Journal: PRB Date of referral: 05Nov04 Date of response: 11Nov04
Effects of Fermi surface and superconducting gap structure in field-

- rotational experiments: A possible explanation for the cusplike singularity in $\text{YNi}_2\text{B}_2\text{C}$**
Udagawa, Masafumi/Yanase, Youichi/Ogata, Masao/
 Response from referee: Report received
 Current manuscript status: Published as [PRB 71, 024511 \(21 January 2005\)](#)
15. **BU9168** Journal: PRB Date of referral: 16Oct04 Date of response: 01Nov04
Effects of Fermi surface and superconducting gap structure in field-rotational experiments: A possible explanation for the cusplike singularity in $\text{YNi}_2\text{B}_2\text{C}$
Udagawa, Masafumi/Yanase, Youichi/Ogata, Masao/
 Response from referee: Declined to review or didn't receive referral
 Current manuscript status: Published as [PRB 71, 024511 \(21 January 2005\)](#)
16. **LM9096BJ** Journal: PRB Date of referral: 23Sep04 Date of response: 05Oct04
Thermodynamics of MgB_2 described by the weak-coupling two-band BCS model
Mishonov, Todor M./Pokrovsky, Valery L./Wei, Hongduo/
 Response from referee: Report received
 Current manuscript status: Published as [PRB 71, 012514 \(31 January 2005\)](#)
17. **BT9026** Journal: PRB Date of referral: 24Aug04 Date of response: 06Sep04
Field distribution of a vortex in d -wave superconductors: Quasiclassical approach versus generalized London equation
Laiho, R./L\"{a}hteranta, E./Safonchik, M./Traito, K.B./
 Response from referee: Report received
 Current manuscript status: Published as [PRB 71, 024521 \(27 January 2005\)](#)
18. **BU9168** Journal: PRB Date of referral: 11Aug04 Date of response: 06Sep04
Effects of Fermi surface and superconducting gap structure in field-rotational experiments: A possible explanation for the cusplike singularity in $\text{YNi}_2\text{B}_2\text{C}$
Udagawa, Masafumi/Yanase, Youichi/Ogata, Masao/
 Response from referee: Report received
 Current manuscript status: Published as [PRB 71, 024511 \(21 January 2005\)](#)
19. **LR9599** Journal: PRL Date of referral: 25Jun04 Date of response: 13Jul04
 $\mu_0 H_{c2}$ calculations of H_{c2} for Nb, NbSe₂, and MgB_2
Arai, Masao/Kita, Takafumi/
 Response from referee: Report received
 Current manuscript status: No longer under consideration (PRL)
20. **BT9026** Journal: PRB Date of referral: 10Jun04 Date of response: 18Jun04
Field distribution of a vortex in d -wave superconductors: Quasiclassical approach versus generalized London equation
Laiho, R./L\"{a}hteranta, E./Safonchik, M./Traito, K.B./
 Response from referee: Report received
 Current manuscript status: Published as [PRB 71, 024521 \(27 January 2005\)](#)
21. **LR9599** Journal: PRL Date of referral: 07May04 Date of response: 16May04
 $\mu_0 H_{c2}$ calculations of H_{c2} for Nb, NbSe₂, and MgB_2

Arai, Masao/Kita, Takafumi/

Response from referee: Report received

Current manuscript status: No longer under consideration (PRL)

22. **BN8950** Journal: PRB Date of referral: 29Apr04 Date of response:
12May04

Quasiclassical theory of superconducting states under magnetic fields: Thermodynamic properties

Kusunose, Hiroaki/

Response from referee: Report received

Current manuscript status: Published as PRB 70, 054509 (10 August 2004)

23. **BN8950** Journal: PRB Date of referral: 26Jan04 Date of response:
18Feb04

Quasiclassical theory of superconducting states under magnetic fields: Thermodynamic properties

Kusunose, Hiroaki/

Response from referee: Report received

Current manuscript status: Published as PRB 70, 054509 (10 August 2004)

24. **BG9092** Journal: PRB Date of referral: 23Oct03 Date of response:
07Nov03

Mechanism of vortex escape from extended linear defects in the three-dimensional anisotropic superconductor

Kasatkin, A.L./Rhee, J.Y./Lee, Y.P./

Response from referee: Report received

Current manuscript status: No longer under consideration (PRB regular article)

УНИВЕРЗИТЕТ ЦРНЕ ГОРЕ

Ул. Цетинска бр. 2
П. фах 99
81000 ПОДГОРИЦА
ЦРНА ГОРА
Телефон: (020) 414-255
Факс (020) 414-230
E-mail: rektor@ac.me



UNIVERSITY OF MONTENEGRO

Ul. Cetinjska br. 2
P.O. BOX 99
81 000 PODGORICA
MONTENEGRO
Phone: (+382) 20 414-255
Fax: (+382) 20 414-230
E-mail: rektor@ac.me

УНИВЕРЗИТЕТ ЦРНЕ ГОРЕ
Природно-математички факултет
Број: 765
Датум: 31. 03. 2010

Број: 08-413
Датум, 05. 03. 2010 г.

Ref: _____
Date, _____

Na osnovu člana 75 stav 2 Zakona o visokom obrazovanju (Sl.list RCG br. 60/03) i člana 18 Statuta Univerziteta Crne Gore, Senat Univerziteta Crne Gore, na sjednici održanoj 25.03.2010. godine, donio je

ODLUKU O IZBORU U ZVANJE

Dr BORKO VUJIČIĆ bira se u akademsko zvanje redovni profesor Univerziteta Crne Gore za predmete: Statistička fizika i Fizika čvrstog stanja na Prirodno-matematičkom fakultetu.

REKTOR

Prof.dr Predrag Miranović

Biografija

Borko Vujičić je rođen 20. 02. 1959. u Kazancima, opština Bosansko Grahovo, u bivšoj Bosni i Hercegovini, gde je i završio osnovnu školu. Gimnaziju je završio u Livnu 1978. Te godine se upisao na Odsek za fiziku Prirodno-matematičkog fakulteta Univerziteta u Beogradu. Diplomirao je 1983. na smeru *teorijska fizika* sa diplomskim radom iz oblasti statističke fizike. Od 15. 12. 1983. do danas radi na Prirodno-matematičkom fakultetu Univerziteta Crne Gore. U vojsci je proveo čitavu 1987. godinu.

Od januara 1988. do jula 1991. proveo je na usavršavanju na Fizičkom fakultetu Moskovskog državnog univerziteta na katedri za fiziku niskih temperatura i superprovodnost. Taj period je dr Vujičić iskoristio za intenzivan naučni rad i učenje. Redovno je posećivao, i u njemu aktivno učestvovao, seminar iz superprovodnosti na katedri na kojoj je bio. Takođe je redovno posećivao i seminar u Institutu za fizičke probleme, kao i opštemoskovski seminar u Fizičkom institutu Akademije nauka SSSR (FIAN). Pored toga, redovno je pohađao i specijalističke kurseve iz oblasti za koju se opredelio: superprovodnost, kvantna teorija čvrstog stanja i kinetički procesi u čvrstom stanju. Magistarski rad pod nazivom *Anomalne temperaturske zavisnosti termodinamičkih karakteristika superprovodnih superrešetki* odbranio je u februaru 1991. na Fizičkom fakultetu Univerziteta u Beogradu. U zvanje asistenta izabran je 1991.

Doktorsku disertaciju pod nazivom *Magnetne osobine visokotemperaturskih superprovodnika* odbranio je u julu 1996. na Fizičkom fakultetu Univerziteta u Beogradu. U zvanje docenta za predmete *Statistička fizika* i *Fizika čvrstog stanja* izabran je 1997, u zvanje vanrednog profesora za iste predmete 2002, a redovnog 2010.

Dr Vujičić govori ruski i engleski jezik.

Radovi objavljeni u međunarodnim časopisima

1. Hajduković D, Vujičić BU,
Some exact results on the Ising antiferromagnet with general spin S on the triangular lattice, *Physica Status Solidi B*, (1987), 143:727-731
2. Hajduković D, Mijatović M, Vujičić B
Exact solution of the one-dimensional Potts bridge model with competing interactions, *Philosophical magazine letters*, (1988), 57(2):129-133
3. A. I. Buzdin, D. A. Kuptsov, B. Vujičić,
Anomalous temperature dependences of London penetration depth and of critical fields in superconducting superlattices, *SUPERCONDUCTOR SCIENCE & TECHNOLOGY*, (1989), 2:249-253
4. A. I. Buzdin, D. A. Kuptsov, B. Vujičić,
Anomalous temperature dependences of London penetration depth in layered superconductors, *PHYSICA C*, (1989), 162-164:561-562
5. A. I. Buzdin, B. Vujičić, A. Kupcov,
Struktury sverhprovodnik-ferromagnetik, *JOURNAL OF EXPERIMENTAL AND THEORETICAL PHYSICS*, (1989), 96:1094-1105
6. Вуйичич БУ, Купцов ДА
Влияние поверхностного ферромагнетизма на критическое поле сверхпроводящей пленки, (1989), СФХТ, 12:24.
7. Вуйичич БУ, Купцов ДА
Возможность аномальной температурной зависимости лондоновской глубины проникновения в слоистых сверхпроводниках, СФХТ, (1989), 2(10): 121
8. A. I. Buzdin, D. A. Kuptsov, B. Vujičić
Possible anomalous temperature dependences of London penetration depth in thallium and bismuth high- T_c superconductors, *MODERN PHYSICS LETTERS B*, (1990), 4(8):525-529
9. A. I. Buzdin, B. Vujičić
Influence of fluctuations on the London penetration depth, *MODERN PHYSICS LETTERS B*, (1990), 4(7):485-488.
10. D. A. Kuptsov, B. Vujičić
Parallel upper critical field of layered superconductors with several superconducting layers in the unit cell, *SOLID STATE COMMUNICATIONS*, (1991), 78(12):1059-1062
11. A. I. Buzdin, M. Yu. Kupriyanov, B. Vujičić
The oscillation of the critical temperature of S-F multilayers, *PHYSICA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS* (ISSN:0921-4534), Volume 185-189, Issue , Jan. 1991, Page(s) 2025-2026 [10685]
12. Буздин АИ, Вуйичич Б, Куприянов МЮ
Структуры сверхпроводник-ферромагнетик, ЖЭТФ, (1992), 101:231-; (Izdanje na engleskom) Buzdin AI, Bujicic B and Kupriyanov MYu, Sov. Phys. JETP, (1992), 74 :124.
13. Lj. Dobrosavljević-Grujić, B. Vujičić, Z. Radović
Flux penetration and pinning in superconductor-ferromagnet superlattices, *PHYSICA C-SUPERCONDUCTIVITY AND ITS*

- APPLICATIONS* (ISSN:0921-4534), Volume 235-240, Issue , Jan. 1994,
Page(s) 2749-2750 [10686]
14. Z. Radović, Lj. Dobrosavljević-Grujić, B. Vujičić, R. Žikić
Spontaneous currents in Josephson devices, *SOLID STATE PHENOMENA*, (1998), 61-62:45-52
 15. Z. Radović, L. Dobrosavljević-Grujić, B. Vujičić
Spontaneous currents in Josephson devices, *Physical Review B*, (1989), 60(9):6844-6849
 16. Z. Radović, L. Dobrosavljević-Grujić, B. Vujičić
Coexistence of stable and metastable θ and π states in Josephson junctions, *Physical Review B*, (ISSN:1098-0121), Volume 63, Issue 21, June 2001, Page(s) (214512-1)-(214512-6) [10200]
 17. R. Žikić, Lj. Dobrosavljević-Grujić, B. Vujičić
Temperature-induced coexistence of integer, half-integer and quarter-integer fluxoid configurations in d-wave SQUIDS with a ferromagnetic junction, *SUPERCONDUCTOR SCIENCE & TECHNOLOGY*, (2009), 22(7): 075022 1-6
 18. R. Zikic, L. Dobrosavljević-Grujić, B. Vujičić
Temperature-induced θ - π coexistence in clean superconductor-ferromagnet-superconductor Josephson junctions, *Physical Review B* (2009), 79(5):05253(1-4)

Goran Karapetrov



GORAN KARAPETROV, PHD

Professor

Department of Physics

Office: Disque Hall 609

goran@drexel.edu (<mailto:goran@drexel.edu>)

Phone: 215.571.4090

Additional Sites: [Research Group Page \(http://www.physics.drexel.edu/~goran/\)](http://www.physics.drexel.edu/~goran/), [Condensed Matter Physics Group \(coas.academics/departments-centers/physics/research/condensed-matter/\)](http://coas.academics/departments-centers/physics/research/condensed-matter/)

Education:

BS/MS, Physics, Moscow State University, Moscow, Russia, 1991

PhD, Physics, Oregon State University, 1996

Research Interests:

Experimental Solid State Physics

Scanning Probe Microscopy

Nanoscale Catalysis

Mesoscopic Superconductivity

CURRICULUM VITAE

Dr. Goran Karapetrov

Professor

Department of Physics, Drexel University
3141 Chestnut Street, Philadelphia, PA 19104
tel: 215 571 4090 e-mail: goran@drexel.edu

PROFESSIONAL INTERESTS

Strongly correlated electron systems, scanning probe microscopy and spectroscopy, emergent phenomena in mesoscopic systems, mechanisms of catalysis on atomic scale, ultrafast phenomena in correlated materials, quantum materials and quantum sensors.

PROFESSIONAL EXPERIENCE

2016 - present	Professor Department of Physics, Drexel University
2017 - present	Professor (courtesy appointment) Department of Materials Science and Engineering, Drexel U.
2011 - 2016	Associate Professor Department of Physics, Drexel University
2010 - 2011	Visiting EU Foreign Expert Institute of Electrical Engineering, Slovak Academy
2005 - 2010	Physicist Materials Science Division, Argonne National Laboratory
2000 - 2005	Assistant Scientist Materials Science Division, Argonne National Laboratory
1997 - 2000	Postdoctoral Associate Materials Science Division, Argonne National Laboratory
1995 - 1997	Research Scientist Advanced Microbotics Corporation, Portland, Oregon
1991 - 1995	Research Assistant Physics Department, Oregon State University, Corvallis

EDUCATION

1996	Ph.D. in Condensed Matter Physics Physics Department, Oregon State University
1991	BSc / MSc Degrees – Condensed Matter Physics Physics Department, Moscow State University (Lomonosov)

PUBLICATIONS IN REFEREED JOURNALS

More than 135 publications in refereed journal (h-index 28 WoS, 3,238 citations)

HONORS/AWARDS

- **2022 Foreign Expert Fellowship**, CEMEA, Slovak Academy of Sciences
- **2021 Senior Member of IEEE**, Chair of IEEE Philadelphia Magnetics Section
- **2020 Drexel Solutions Fellow** facilitating links between academic and industrial research
- **ISI-Thomson Scientific** recognition as lead author of most cited publication in the field of superconductivity;
- **Sigma XI Physical Society Award** for graduate research accomplishments in high-temperature superconductivity;
- **Thesis Award** for best diploma thesis at Physics Department, Moscow State University, Russia.

FUNDED PROPOSALS

- **2022** “Superconducting Materials and Devices for Quantum Sensing” Argonne National Laboratory Q-NEXT subcontract \$60,000
- **2021** “Effect of Local Order on the Fundamental Electronic Properties of MXenes” DOE-BES \$100,000
- **2017-2021** “Chiral Charge Density Wave Electronics” G. Karapetrov (PI), NSF, \$370,000
- **2017-2021** “Superconducting Nanowire Detectors for UV-Vis and Particle Detection”, G. Karapetrov (PI), Argonne National Laboratory, \$196,000
- **2018-2020** “Center for Complex Materials from First Principles”, J. Perdew (PI), G. Karapetrov (co-PI), DOE-EFRC, \$3,000,000 (\$100,000 to GK group)
- **2016-2017** Drexel Areas of Research Excellence: BRAVE – Biologically-Inspired and Resource-Conserving Advanced Materials, M. Marcolongo (PI), G. Karapetrov (co-PI), Drexel University, \$250,000
- **2014-2018** “Computational Design of Functional Layered Materials”, J. Perdew (PI), G. Karapetrov (co-PI), DOE-EFRC, \$12,000,000 (\$680,000 to GK group)
- **2014-2017** “Development of Chiral Charge Density Wave Electronics” G. Karapetrov (PI), NSF, \$360,000
- **2015-2016** “Nanostructured Metal Chalcogenides as Catalysts for Polymer Electrolyte Fuel Cells”, G. Karapetrov and A. Vasiliev, CRDF-Global, \$70,000
- **2014-2015** “Manipulation of Chiral Charge Density Waves” M. Iavarone (PI), G. Karapetrov (co-PI), DoD-ARO \$50,000
- **2014** “Nanoscale Mechanism of Superconductivity and Vortex Pinning in Iron-Based Superconductors” G. Karapetrov and A. Vasiliev, CRDF-Global, \$57,500
- **2012** “Engineered Surfaces for Nanoscale Catalysis”, G. Karapetrov, Drexel undergraduate co-op research, \$7,500
- **2008-2011** “Single Photon Receiver using Abrikosov Vortices”, G. Karapetrov, V. Novosad, V. Yefremenko, and M. Iavarone, \$175k/year, Argonne LDRD Program;
- **2005-2007** “Fundamental Studies of Electrocatalysis for Low Temperature Fuel Cell Cathodes”, H. You, N. Markovic, G. Karapetrov, P. Zapol, D. Myers, Y.V. Tolmachev, J.W.Halley, \$1.1M/year, Department of Energy – BES;
- **2006/2007** “Quantum Wire Interconnects”, I. Beloborodov, W.K. Kwok, G. Karapetrov, M. Knickelbein, S. Vajda, \$140K/year, Argonne LDRD Program;
- **2004-2006** “Photosynthetic Reaction Center as a Novel Quantum Electronic Circuit Element”, G. Karapetrov, I. Kosztin, M. Firestone, D.K. Hanson, \$150K/year, Argonne LDRD Program;
- **2005/2006** “Novel Magnetic Force Microscopy for Variable Temperatures and Ultra High Vacuum Environments”, G. Karapetrov and V. Novosad, \$60K/year, Argonne LDRD Program;

- **2005/2006** “ALD Stabilization of Nanoparticles Designed on the Atomic Scale”, M. Pellin, S. Vajda, J. Jellinek, R. Winans, G. Karapetrov, J. Elam, \$150K/year, Argonne LDRD Program;
- **2005** “Novel Magnetic Force Microscopy for Variable Temperatures Ultra High Vacuum Environments”, G. Karapetrov and V. Cambel, \$9K, NATO – Collaborative Linkage Grant;
- **2004** “Synthesis and Characterization of Superconducting Doped Boron-Nanotubes”, U. Welp, G. Karapetrov, W. Kwok, L. Pfefferle, \$140K, Argonne LDRD Program;
- **2004/2005** “Palladium/Semiconductor Nanohybrids as Hydrogen Sensors for Fuel Cell Applications”, Z. Xiao, G. Karapetrov, \$130K/year, LDRD Program;
- **2002-2004** “Imaging of Vortex States in Mesoscopic Superconductors by Scanning Tunneling Spectroscopy”, M. Iavarone, G. Karapetrov, G.W. Crabtree, H. Jaeger, \$50K/year, Argonne LDRD Program;
- **2000** “Micro-machined MEMS Magnetometers Using 2DEG Hall Sensors”, G. Karapetrov and V. Cambel, \$4K, NATO – Expert Visit Program.

TEACHING EXPERIENCE

- **2022** Quantum Technology, graduate, Department of Physics, Drexel University
- **2017** Condensed Matter Physics, graduate, Department of Physics, Drexel University
- **2016** Statistical Mechanics, undergraduate course in Physics, Drexel University
- **2013-2015** Fundamentals of Physics III with Modern Physics, undergrad, Drexel
- **2012** Physics for Life Sciences, undergrad, Department of Physics, Drexel University
- **2012** Classical Electrodynamics, graduate, Department of Physics, Drexel University
- **2011, 2013, 2015, 2017, 2019** Nanoscience, graduate, Department of Physics, Drexel University
- **2009** Lecturer International Summer Camp in Physics, Ivanova Korita, Montenegro
- **2008** Lecturer - International Autumn Seminars on Nanoscience and Engineering in Superconductivity for Young Scientists “Microscopy and Spectroscopy of Mesoscopic Superconductors and Hybrids” Tokyo, Japan
- **2006** Lecturer - International Autumn Seminars on Nanoscience and Engineering in Superconductivity for Young Scientists “Scanning Tunneling Microscopy in Mesoscopic Superconductors” Atagawa Heights, Japan
- **1991-1992** Teaching Assistant - Physics for Engineers, Physics Department, Oregon State University

SUPERVISOR OF GRADUATE AND UNDERGRADUATE STUDENTS:

2014-present Colleen Lindenu (current), Paul Xhori (PhD-2021), Anton Anikin (PhD-2021), Tomas Polakovic (PhD-2020), David Lioi (PhD-2018) Joey Lambert (PhD-2016), Nicholas Trainor (BS-2019), Ecsa DasGupta (BS-2019), Michael Bowen (BS-2019) (undergraduate)

- 2011-13** Jeremie Doehla, Sean Robinson, Mark Davis, Elizabeth Wills, David Lioi, Olga Kyzylova (graduate) Sam Ciocys, Dayne Swearer, James Curtis (undergraduate)
- 2010-2014** Petra Husanikova (graduate student, Ph.D. defended in June 2014)
- 2006-2009** Andrey Belkin (graduate student, Ph.D. defended in September 2009)
- 2004** Patrick McNeff (undergraduate summer student)
- 2003-2004** Jan Fedor (visiting foreign graduate student)
- 2003** MaryBeth Hughes (undergraduate summer student)
- 2002-2003** Roberto DiCapua (visiting foreign graduate student)

SUPERVISOR OF POSTDOCTORAL RESEARCHERS:

- 2019-2020** Dr. Dipna Patel
- 2015-2016** Dr. Marian Precner (currently staff at Slovak Academy of Sciences)
- 2006-2007** Dr. P. Pankowski (currently staff at Polish Academy of Sciences)
- 2005-2007** Dr. J. Fedor (currently staff at Slovak Academy of Sciences)

PROFESSIONAL ACTIVITIES

- **EDITORIAL ASSIGNMENTS**

- 2015-present** Academic Editor for PLoS ONE (impact factor 3.2)

- **COMMITTEE MEMBERSHIPS**

- 2020-** Chair, Philadelphia Chapter of IEEE - Magnetics

- 2020** Drexel Provost's Solutions Fellow

- 2020** Organizer, APS Focus Session "12.01.04: 2D Materials: Metals, Superconductors, and Correlated Materials" at the Annual Meeting of the American Physical Society, March 15-19, 2021

- 2019** Member of the Board (ex-officio), User Advisory Committee, Center for Nanoscale Materials, Argonne National Laboratory

- 2019** Member of Scientific Advisory Committee of the 9th IEEE International Conference: Nanomaterials: Applications and Properties NAP-2019, Odessa, Ukraine (2019)

- 2018** Member of Scientific Advisory Committee of the 8th IEEE International Conference: Nanomaterials: Applications and Properties NAP-2018, Zatoka, Ukraine (2018)

- 2017** Workshop organizer, "Transient Spectroscopy and Non-equilibrium Dynamics of 2D Materials", 2017 Joint CNM/APS User Meeting, Argonne, IL, May 9, 2017

- 2017** Member of Scientific Advisory Committee of the 10th International Conference on Vortex Matter in Nanostructured Superconductors, Rhodes, Greece, September 9-14, 2017

- 2017** Chairman of the Committee for Argonne National Laboratory's NST Samuel D. Bader Prize for Exceptional Achievement
- 2017-** Chair (elected), User Advisory Committee, Center for Nanoscale Materials, Argonne National Laboratory
- 2016** Workshop organizer, "Frontiers in Superconducting Electronics", 2016 Joint CNM/APS User Meeting, Argonne, IL, May 10, 2016
- 2015-present** User Advisory Committee, Center for Nanoscale Materials, Argonne National Laboratory (elected member)
- 2013-present** Member of the Board, A.J. Drexel Nanomaterials Institute
- 2014-present** Argonne National Laboratory Directed Research and Development Subject Matter Expert
- 2015** Member of the Scientific Advisory Committee of VORTEX IX (Ninth International Conference in School Format on Vortex Matter in Nanostructured Superconductors – Sept.12-17, 2015 Rhodes, Greece)
- 2013** Member of the Scientific Advisory Committee of VORTEX VIII (Eighth International Conference in School Format on Vortex Matter in Nanostructured Superconductors – Sept.21-26, 2013 Rhodes, Greece)
- 2012** Organizer, focus session on Superconducting Spintronics, INTERMAG 2012
- 2011** Chair, Condensed Matter Search Committee, Drexel University
- 2006-present** InterNano Advisory Board at the Center for Hierarchical Manufacturing, University of Amherst, Member
- 2006** MSD Infrastructure Committee, member, Materials Science Division, ANL
- 2003** DOE Review Coordinator, Materials Science Division, ANL
- 2003** University of Chicago Review Coordinator, Materials Science Division, ANL
- 2002-2005** Member of the Center for Nanoscale Materials Scientific Instrumentation Procurement Committee, Argonne National Laboratory

- **MEMBERSHIP IN PROFESSIONAL SOCIETIES**

Member, American Physical Society, Materials Research Society, Senior Member of IEEE

Referee for Journals: Physical Review, Physica C, Applied Physics Letters, Europhysics Letters, Surface Science, IEEE journals.

Referee for funding agencies: European Research Council, DOE-SBIR program, Research Corporation, NSF, Russian Science Foundation, Belgian Science Foundation, Slovak Academy of Sciences, Italian Ministry for Education, University and Research.

PATENTS

- **U.S. Patent 6,638,895**
“Method for Fabrication of high aspect ratio structure of perovskite material”, G. Karapetrov, W.K. Kwok, G.W. Crabtree, M. Iavarone, October 28, 2003
- **U.S. Patent 5,830,539**
“Methods for functionalizing and coating substrates and devices made according to the methods”, M. Yan; J.F.W. Keana, G. Karapetrov; C. J.-P. Sevrain, M.N. Wybourne, Nov. 1998.

INVITED TALKS at INTERNATIONAL CONFERENCES

- Summer School of the Arab-German Young Academy of Sciences and Humanities (AGYA) “Quantum Materials for Energy Relevant Technologies”, Amman, Jordan May 15-17, 2022
- 25th International Symposium “Nanophysics and Nanoelectronics” March 9-12, 2021, Nizhny Novgorod, Russia
- International and Interdisciplinary Workshop of the Arab-German Young Academy of Sciences and Humanity (AGYA) October 2020
- Nobel Prize Laureate’s A.A. Abrikosov Memorial Conference, Chernogolovka, Russia (June 25-28, 2019)
- 3rd International Baltic Conference on Magnetism IBCM-2019, Kaliningrad, Russia
- 9th IEEE International Conference: Nanomaterials: Applications and Properties NAP-2019, Odessa, Ukraine
- 2018 International Conference on Science and Application of Thin Films (SATF-2018) in Izmir, Turkey (2018);
- 8th IEEE International Conference: Nanomaterials: Applications and Properties NAP-2018, Zatoka, Ukraine (2018)
- 6th International Conference on Superconductivity and Magnetism - ICSM2018, Antalya, Turkey, May 2, 2018 (2018)
- International Workshop on Advanced Materials Dec.19-21, 2017 at the National Institute of Science and Industry, Behrampur, India
- 22nd International Symposium on Nanophysics and Nanoelectronics, March 13, 2018, Nizhny Novgorod, Russia
- “Spectroscopy of Correlated Electron States in Cu_xTiSe_2 ”, invited seminar at the 10th International Conference on Vortex Matter in Nanostructured Superconductors, Rhodes, Greece, September 9-14, 2017
- “Coexistence of Superconductivity and Chiral Charge Density Wave in Cu_xTiSe_2 ”, invited presentation at the 2017 Moscow International Symposium on Magnetism, Moscow, Russian Federation, June 1-5, 2017
- “Correlated Electron States in Transition Metal Dichalcogenides”, invited talk at the Drexel Symposium on 2D Transition Metal Compounds for Energy Applications, Philadelphia, PA, May 1-2, 2017
- “Correlated Electron States in Cu_xTiSe_2 ”, invited presentation at the 2016 International Conference on Science and Application of Thin Films (SATF-2016) in Izmir, Turkey, September 19-23, 2016

- “Novel Correlated Electron States in TiSe_2 and Cu_xTiSe_2 ”, Invited presentation at the IEEE Photonics Society 2015 Summer Topicals Meeting Series in Nassau, Bahamas July 13-15, 2015
- “STM Investigation of $\text{FeSe}_{1-x}\text{S}_x$ ”, EU-COST (European Cooperation in Science and Technology) sponsored International Workshop “Advances in Studies of Superconducting Hybrids: Theory and Modeling vs Experiment” Arcachon, France, May 16-19, 2015
- “Scanning Tunneling Microscopy of Mesoscopic Systems for Energy Applications” November 3-5, 2014, Shanghai Advanced Research Institute – Drexel Workshop on Energy and Environment, Shanghai, China
- “Emergence of Superconductivity and Vortex Confinement in Superconductor/Ferromagnet Hybrids”, June 29-July 3, 2014, Moscow International Symposium on Magnetism MISM-2014, Moscow, Russia
- “Coexistence of CDW and Superconductivity in Cu_xTiSe_2 ”, International Workshop “Interplay between Superconductivity and Magnetism 2014” April 1-2, 2014 Bordeaux, France
- “Coexistence of CDW and Superconductivity in Cu_xTiSe_2 ”, 8th International Conference “Vortex Matter in Nanostructured Superconductors” satellite of EUCAS 2013, Rhodes, Greece, September 21-26, 2013
- “Emergence of Superconductivity and Vortex Confinement in Superconductor/Ferromagnet Hybrid Systems”, 14th INTERNATIONAL WORKSHOP ON VORTEX MATTER IN SUPERCONDUCTORS, Nanjing, P.R. China, May 21-29, 2013
- “Confinement of Vortex Matter in Mesoscopic Superconductors” Workshop on Nanoscale Superconductivity and Fluxonics, Leuven, Belgium June 12, 2012
- “Anisotropic Superconductivity and Vortex Dynamics in Magnetically Coupled F/S and F/S/F Hybrids”, International Conference on Superconductivity and Magnetism, Antalya, Turkey, April 25-30, 2010
- “Abrikosov Vortex Dynamics in Superconductor-Ferromagnet Hybrids”, International Conference on Quantum Phenomena at Nanoscale, Sv. Stefan, Montenegro, August 30 – September 4, 2009
- “Influence of Magnetic Domain Structure on Vortex Dynamics in Superconductor-Ferromagnet Hybrids”, AMERICAN PHYSICAL SOCIETY ANNUAL MARCH MEETING, Pittsburg, PA, March 16-20, 2009
- “Tunable Electronic Properties in Magnetically Coupled Superconductor-Ferromagnet Bilayers” International Workshop “Nanostructured Superconductors: From Fundamentals to Applications”, Freudenstadt-Lauterbad, Germany, Sept. 13-17, 2008
- “Scanning Tunneling Microscopy in Mesoscopic Superconductors”, Turkish Physical Society 24th International Congress, Malatya, Turkey, Aug.28-31, 2007
- “Vortex Configurations and Vortex Dynamics in S-FM Hybrids”, Vortex Matter in Nanostructured Superconductors (VORTEX V), Rhodes, Greece, Sept. 8-14, 2007
- “Scanning Tunneling Microscopy in Mesoscopic Superconducting Single Crystals”, Mesoscopic Superconductivity and Magnetism, August 28th – Sept. 1st, 2006, Chicago, USA
- “STM Studies of Vortex Phase Transitions in Mesoscopic Superconductors”, International Conference on Trends in Future Electronics: Quantum Digital Circuits, Materials with Exceptional Electronic Properties, Novel Devices and Applications, Bordeaux, France, May 6-10, 2006

- “Scanning Tunneling Spectroscopy in MgB_2 ”, Workshop on Weak Superconductivity - Satellite to the 7th European Conference on Applied Superconductivity, Bratislava, Slovakia, Sept. 16-19, 2005
- “Vortex Phase Transitions in Mesoscopic Superconductors Studied by STM” VORTEX IV (Vortex Matter in Nanostructured Superconductors) – Satellite to the 7th European Conference on Applied Superconductivity, Crete, Greece, Sept. 3-9, 2005
- “Vortex configurations in patterned superconductors by STM”, International Argonne Fall Workshop on Nanophysics IV, Argonne IL, USA, Nov. 11-15, 2004
- “Phase Diagram of Single Crystal MgB_2 ” International Conference on Physics and Chemistry of Molecular and Oxide Superconductors, Hsinchu, Taiwan, Aug. 13-18, 2002
- “Momentum Dependent Scanning Tunneling Spectroscopy in MgB_2 ”, 23rd International Conference on Low Temperature Physics, Hiroshima, Japan, Aug. 20-27, 2002
- “Scanning Tunneling Microscopy in MgB_2 ”, 8th International Workshop on Vortex Dynamics, Bariloche, Argentina, Nov.26-30, 2001
- “MEMS-Based Instruments for Basic Research Applications”, AMERICAN PHYSICAL SOCIETY ANNUAL MARCH MEETING, Seattle, WA, USA, March 12-16, 2001

CONTRIBUTIONS TO INTERNATIONAL MEETING and CONFERENCES (AS PRESENTING AUTHOR)

- ANNUAL AMERICAN PHYSICAL SOCIETY MARCH MEETING, Boston, MA, USA March 15-19, 2021 (2 oral presentation)
- 11th IEEE International Conference: Nanomaterials: Applications and Properties NAP-2021, Odessa, Ukraine (Sept. 10, 2021)
- ANNUAL AMERICAN PHYSICAL SOCIETY MARCH MEETING, Boston, MA, USA March 4-8, 2019 (1 oral presentation)
- ANNUAL AMERICAN PHYSICAL SOCIETY MARCH MEETING, New Orleans, LA, USA March 13-17, 2017 (2 oral presentations)
- MRS 58th Electronics Materials Conference, Newark, Delaware, June 22-24, 2016
- ANNUAL AMERICAN PHYSICAL SOCIETY MARCH MEETING, Baltimore, MD, USA March 14-18, 2016 (2 oral presentations)
- ANNUAL AMERICAN PHYSICAL SOCIETY MARCH MEETING, San Antonio, TX, USA March 2-6, 2015 (4 oral presentations)
- ANNUAL AMERICAN PHYSICAL SOCIETY MARCH MEETING, Denver, CO, USA March 3-7, 2014 (2 oral presentations)
- ANNUAL AMERICAN PHYSICAL SOCIETY MARCH MEETING, Baltimore, MD, USA March 17-22, 2013 (5 oral presentation)
- 2008 International Applied Superconductivity Conference, Chicago, IL, August 17-22, 2008
- 25th International Conference on Low Temperature Physics (LT25), Amsterdam, The Netherlands, August 6-13, 2008
- ANNUAL AMERICAN PHYSICAL SOCIETY MARCH MEETING, New Orleans, USA March 10-14, 2008
- "Seeing at Nanoscale V", Santa Barbara, CA, June 24-27, 2007
- ANNUAL AMERICAN PHYSICAL SOCIETY MARCH MEETING, March 5-9, 2007, Denver, CO, USA
- 10th Joint MMM/Intermag Conference January 7-11, 2007, Baltimore, MD
- ANNUAL AMERICAN PHYSICAL SOCIETY MARCH MEETING, March 21-25, 2005, Los Angeles, USA
- ANNUAL AMERICAN PHYSICAL SOCIETY MARCH MEETING, March 18-22, 2002, Indianapolis, USA
- 22nd International Conference on Low-Temperature Superconductivity, August 4-11, 1999, Helsinki, Finland
- Gordon Research Conference on Bioanalytical Sensors, January 14-19, 1996, Ventura, CA
- Gordon Research Conference on Superconductivity, June 26-30, 1995, Tilton School, Tilton, NH
- ANNUAL AMERICAN PHYSICAL SOCIETY MARCH MEETING, March 21-25, 1994, Pittsburgh, USA

LIST of INVITED SEMINARS at UNIVERSITIES and RESEARCH INSTITUTIONS

- Invited seminar at the Institute of Electrical Engineering, Slovak Academy of Sciences “Chirality Induced Spin Polarization”, Bratislava, Slovakia, April 19, 2022
- Invited colloquium at the CEMEA (Center for Advanced Materials Applications), “2D Materials for Energy Storage” Slovak Academy of Sciences, Bratislava, May 31, 2022
- Invited seminar at the Department of Physics, George Mason University “Ultrafast Techniques in Studies of Charge Density Wave Systems” online 04/19/2021
- Colloquium at the Institute for Physics of Microstructures, Russian Academy of Sciences “Chiral Charge Density Wave in TiSe_2 ” online 05/21/2021
- Invited colloquium at the Institute of Electrical Engineering, Slovak Academy of Sciences “Latest Advances in Quantum 2D Materials”, Bratislava, Slovakia, Nov. 30, 2018
- Invited seminar at Charles University, Goran Karapetrov, “Transition Edge Sensors for Fundamental Physics”, Prague, Sept. 8, 2018
- Invited seminar at the Institute of Automation and Control Processes, Russian Academy of Sciences, Goran Karapetrov, “Spectroscopy of Correlated Electronic States in Single Crystals of Cu_xTiSe_2 ”, Vladivostok, Russia, June 4, 2018
- Invited seminar at the Department of Applied Physics, University of Tsukuba, Goran Karapetrov, “Charge density wave in TiSe_2 and CuTiSe_2 ”, March 30, 2018, Tsukuba, Japan
- Invited colloquium at the Department of Physics, Villanova University, Goran Karapetrov, “Evolution of superconductivity and Charge density wave in Mesoscopic Systems”, October 20, 2017, Villanova, PA
- Invited condensed matter seminar at the Department of Physics, University of Notre Dame, Goran Karapetrov, “Spectroscopy of Correlated Electronic States in Single Crystals of Cu_xTiSe_2 ”, October 26, 2017, Notre Dame, IN
- “Spectroscopy of Correlated Electron States in Cu_xTiSe_2 ”, invited condensed matter seminar at the University of Notre Dame, Notre Dame, Indiana, October 26, 2017
- “Spectroscopy of Correlated Electron States in Cu_xTiSe_2 ”, invited seminar at the Goethe University, Frankfurt, Germany, June 5, 2017
- “Drexel Areas of Research Excellence: BRAVE – Biologically-Inspired and Resource-Conserving Advanced Materials”, invited seminar at the 2017 ShanghaiTech-Drexel Joint Research Workshop, Shanghai, China, June 1-2, 2017
- “Spectroscopy of Correlated Electron States in Cu_xTiSe_2 ”, invited solid state seminar at the Department of Physics, University of Illinois, Urbana-Champaign, Illinois, January 26, 2017
- “Coexistence of Superconductivity and Chiral Charge Density Waves in Cu_xTiSe_2 ”, CAS Center for High Pressure Science and Technology Advanced Research, Shanghai, China, November 5, 2014
- “Dichalcogenide Single Crystal Growth and Atomic Scale Characterization”, Energy Frontier Research Center Presentation, Temple University, October 20, 2014
- “Emergent Phenomena in Mesoscopic Systems for Energy Applications”, Colloquium at Physics Department, Stockton College, Galloway, NJ, October 13, 2014
- “Chiral CDW in TiSe_2 ” University of Pennsylvania Center for Modeling of Materials, August 8, 2013
- “Vortex Matter in Mesoscopic Superconductors” seminar at Physics Department, university of Bordeaux, Bordeaux, France, June 14, 2012

- “Visualizing competing interactions on atomic scale in new materials for energy: examples of hybrid superconductors and catalysts”, seminar at the Institute for Nanoscale Physics and Chemistry, Katholieke University, Leuven, Belgium, July 9, 2010
- “Atomic Scale Imaging and Spectroscopy of Hybrid Systems”, seminar at Molecular Foundry, Lawrence Berkeley National Laboratory, Berkeley, CA, Jan. 21, 2009
- “Atomic Scale Imaging and Spectroscopy of Engineered Materials for Energy”, seminar at San Jose State University, San Jose, CA, March 9, 2009
- “STM Studies of Hybrid Superconducting Systems”, Dec. 1, 2008, seminar at the National Institute for Material Science (NIMS) in Tsukuba, Japan.
- “Vortex Transitions in Hybrid Mesoscopic Superconductors”, Oct. 15, 2008, colloquium at the Physics Department, Boston College, Boston, MA
- “STM Studies of Hybrid Superconducting Systems”, Aug. 5, 2008, seminar at Katholieke University – Leuven, Belgium
- “Visualizing Vortices in Mesoscopic Superconductors”, December 18, 2007, seminar, Sandia National Laboratories, Albuquerque, New Mexico;
- “Vortex Phase Transitions in Mesoscopic Superconductors”, May 12, 2006, seminar at University Paris-6, Paris, France;
- “STM Studies of Phase Transitions in Mesoscopic Superconductors”, May 11, 2006, CRTBT-CNRS, Université Joseph Fourier et Institut Universitaire, Grenoble, France;
- “Direct Observation of Vortex Transitions in Mesoscopic Superconductors by Scanning Tunneling Microscopy”, Los Alamos National Lab, May 23, 2005;
- “Vortex Transitions in Mesoscopic Superconductors”, MSD Colloquium, Argonne National Lab., Oct.21, 2004;
- “MEMS for Research Applications”, Faculty of Engineering, University of Naples, Naples, Italy, Oct. 7, 1999
- “Enhanced Critical Currents in Irradiated HTSC Materials Studied by Hall probes”, Institute of Electrical Engineering, Slovak Academy of Sciences, Bratislava, Slovakia, Aug. 13, 1999;
- “Contactless Characterization of Melt-Textured Superconducting Junctions using Micro-Hall Sensor Arrays”, Low Temperature Physics Dept., Moscow State University, Moscow, Russia, Aug. 2, 1999;
- “Micro-electromechanical Systems and Sensors”, Ecole Polytechnique, Palaiseau, France, July 3, 1998

LIST OF PUBLICATIONS

Goran Karapetrov

- Alfonso, K., G., Armato A, Armengaud E, Armstrong W, Augier C, Avignone FT, Azzolini O, Barabash A, Bari G, Barresi A, Baudin D, Bellini F, Benato G, Bcretta M, Bergé L, Biassoni M, Billard J, Boldrini V, Branca A, Brofferio C, Bucci C, Camilleri J, Capelli S, Cappelli L, Cardani L, Carniti P, Casali N, Cazes A, Celi E, Chang C, Chapellier M, Charrier A, Chiesa D, Clemenza M, Colantoni I, Collamati F, Copello S, Cremonesi O, J. Creswick R, Cruciani A, D'Addabbo A, D'Imperio G, Dafinei I, A. Danevich F, de Combarieu M, De Jesus M, de Marcillac P, Dell'Oro S, Di Domizio S, Dompè V, Drobizhev A, Dumoulin L, Fantini G, Faverzani M, Ferri E, Ferri F, Ferroni F, Figueroa-Feliciano E, Formaggio J, Franceschi A, Fu C, Fu S, Fujikawa BK, Gascon J, Giachero A, Gironi L, Giuliani A, Gorla P, Gotti C, Gras P, Gros M, Gutierrez TD, Han K, Hansen EV, Heeger KM, Helis DL, Huang HZ, Huang RG, Imbert L, Johnston J, Juillard A, Karapetrov G, Keppel G, Khalife H, Kobychhev VV, Kolomensky YuG, Konovalov S, Liu Y, Loaiza P, Ma L, Madhukuttan M, Mancarella F, Mariam R, Marini L, Marnieros S, Martinez M, Maruyama RH, Mauri B, Mayer D, Mei Y, Milana S, Misiak D, Napolitano T, Nastasi M, Navick XF, Nikkel J, Nipoti R, Nisi S, Nones C, Norman EB, Novosad V, Nutini I, O'Donnell T, Olivieri E, Oriol C, Ouellet JL, Pagan S, Pagliarone C, Pagnanini L, Pari P, Pattavina L, Paul B, Pavan M, Peng H, Pessina G, Pettinacci V, Pira C, Pirro S, V. Poda D, Polakovic T, Polischuk OG, Pozzi S, Previtali E, Puñu A, Ressa A, Rizzoli R, Rosenfeld C, Rusconi C, Sanglard V, Scarpaci JA, Schmidt B, Sharma V, Shlegel V, Singh V, Sisti M, Speller D, Surukuchi PT, Taffarello L, Tellier O, Tomei C, Tretyak VI, Tsybaliuk A, Velazquez M, Vetter KJ, Wagaarachchi SL, Wang G, Wang L, Welliver B, Wilson J, Wilson K, Winslow LA, Xue M, Yan L, Yang J, Yefremenko V, Yumatov V, Zarytsky MM, Zhang J, Zolotarova A, Zucchelli S, "Optimization of the first CUPID detector module". *European Physics Journal C* **82** (2022) 810 <https://dx.doi.org/10.1140/epjc/s10052-022-10720-3>
- Zhang, J., Chang, C. L., Fujikawa, B., Karapetrov, G., Kolomensky, Y.G.; Kwok, W-K, Lisovenko, M., Novosad, V., Pearson, J., Singh, V., Wang, G., Welliver, B., Welp, U., Yefremenko, V.G., "Characterization of the Thermal Properties of Ir/Pt Bilayer Transition Edge Sensors", *Journal of Low Temperature Physics* Sept. (2022) <https://dx.doi.org/10.1007/s10909-022-02811-y>
- D. Wickramaratne, S. Subedi, D.H. Torchinsky, G. Karapetrov, I. I. Mazin, "Photoinduced chiral charge density wave in $TiSe_2$ ", *Physical Review B* **105**, 054102.(2022)
- Fantini, G., Armato A, Armengaud E, Armstrong W, Augier C, Avignone FT, Azzolini O, Barabash A, Bari G, Barresi A, Baudin D, Bellini F, Benato G, Beretta M, Bergé L, Biassoni M, Billard J, Boldrini V, Branca A, Brofferio C, Bucci C, Camilleri J, Capelli S, Cappelli L, Cardani L, Carniti P, Casali N, Cazes A, Celi E, Chang C, Chapellier M, Charrier A, Chiesa D, Clemenza M, Colantoni I, Collamati F, Copello S, Cremonesi O, J. Creswick R, Cruciani A, D'Addabbo A, D'Imperio G, Dafinei I, A. Danevich F, de Combarieu M, De Jesus M, de Marcillac P, Dell'Oro S, Di Domizio S, Dompè V, Drobizhev A, Dumoulin L, Fantini G, Faverzani M, Ferri E, Ferri F, Ferroni F, Figueroa-Feliciano E, Formaggio J, Franceschi A, Fu C, Fu S, Fujikawa BK, Gascon J, Giachero A, Gironi L, Giuliani A, Gorla P, Gotti C, Gras P, Gros M, Gutierrez TD, Han K, Hansen EV, Heeger KM, Helis DL, Huang HZ, Huang RG, Imbert L, Johnston J, Juillard A, Karapetrov G, Keppel G, Khalife H, Kobychhev VV,

Kolomensky YuG, Konovalov S, Liu Y, Loaiza P, Ma L, Madhukuttan M, Mancarella F, Mariam R, Marini L, Marnieros S, Martinez M, Maruyama RH, Mauri B, Mayer D, Mei Y, Milana S, Misiak D, Napolitano T, Nastasi M, Navick XF, Nikkel J, Nipoti R, Nisi S, Nones C, Norman EB, Novosad V, Nutini I, O'Donnell T, Olivieri E, Oriol C, Ouellet JL, Pagan S, Pagliarone C, Pagnanini L, Pari P, Pattavina L, Paul B, Pavan M, Peng H, Pessina G, Pettinacci V, Pira C, Pirro S, V. Poda D, Polakovic T, Polischuk OG, Pozzi S, Previtali E, Puiu A, Ressa A, Rizzoli R, Rosenfeld C, Rusconi C, Sanglard V, Scarpaci JA, Schmidt B, Sharma V, Shlegel V, Singh V, Sisti M, Speller D, Surukuchi PT, Taffarello L, Tellier O, Tomei C, Tretyak VI, Tsymbaliuk A, Velazquez M, Vetter KJ, Wagaarachchi SL, Wang G, Wang L, Welliver B, Wilson J, Wilson K, Winslow LA, Xue M, Yan L, Yang J, Yefremenko V, Yumatov V, Zarytskyy MM, Zhang J, Zolotarova A, Zucchelli S, "Machine Learning Techniques for Pile-Up Rejection in Cryogenic Calorimeters". *Journal of Low Temperature Physics* May (2021). <https://dx.doi.org/10.1007/s10909-022-02741-9>

Armatol A, Armengaud E, Armstrong W, Augier C, Avignone FT, Azzolini O, Bandac IC, Barabash AS, Bari G, Barresi A, Baudin D, Bellini F, Benato G, Beretta M, Bergé L, Bourgeois C, Biassoni M, Billard J, Boldrini V, Branca A, Brofferio C, Bucci C, Calvo-Mozota JM, Camilleri J, Candela A, Capelli S, Cappelli L, Cardani L, Carniti P, Casali N, Cazes A, Celi E, Chang C, Chapellier M, Charrier A, Chiesa D, Clemenza M, Colantoni I, Collamati F, Copello S, Cremonesi O, Creswick RJ, Cruciani A, D'Addabbo A, D'Imperio G, Dafinei I, Danevich FA, Combarieu M de, Deo MD, Jesus MD, Marcillac P de, Dell'Oro S, Domizio SD, Dompé V, Drobizhev A, Dumoulin L, Fantini G, Faverzani M, Ferri E, Ferri F, Ferroni F, Figueroa-Feliciano E, Formaggio J, Franceschi A, Fu C, Fu S, Fujikawa BK, Gascon J, Giachero A, Gironi L, Giuliani A, Gorla P, Gotti C, Gras P, Gros M, Guerard E, Gutierrez TD, Han K, Hansen EV, Heeger KM, Helis DL, Huang HZ, Huang RG, Ianni A, Imbert L, Johnston J, Juillard A, Karapetrov G, Keppel G, Khalife H, Kobychyev VV, Kolomensky YG, Konovalov SI, Liu Y, Loaiza P, Ma L, Madhukuttan M, Mancarella F, Mariam R, Marini L, Marnieros S, Martinez M, Maruyama RH, Mauri B, Mayer D, Mei Y, Milana S, Misiak D, Napolitano T, Nastasi M, Navick X-F, Nikkel J, Nipoti R, Nisi S, Nones C, Norman EB, Novosad V, Nutini I, O'Donnell T, Olivier G, Olivieri E, Oriol C, Ouellet JL, Pagan S, Pagliarone C, Pagnanini L, Pari P, Pattavina L, Paul B, Pavan M, Peng H, Pessina G, Pettinacci V, Pira C, Pirro S, Poda DV, Polakovic T, Polischuk OG, Pozzi S, Previtali E, Puiu A, Ressa A, Reynet D, Rizzoli R, Rosenfeld C, Sanglard V, Scarpaci JA, Schmidt B, Sharma V, Shlegel VN, Singh V, Sisti M, Speller D, Surukuchi PT, Taffarello L, Tellier O, Tomei C, Tretyak VI, Tsymbaliuk A, Velazquez M, Vetter KJ, Wagaarachchi SL, Wang G, Wang L, Welliver B, Wilson J, Wilson K, Winslow LA, Xue M, Yan L, Yang J, Yefremenko V, Yumatov VI, Zarytskyy MM, Zhang J, Zolotarova AS, Zucchelli S "A CUPID $\text{Li}_2^{100}\text{MoO}_4$ scintillating bolometer tested in the CROSS underground facility". *Journal of Instrumentation* 16 (2021) P02037–P02037. <https://doi.org/10.1088/1748-0221/16/02/P02037>

Armatol A, Armengaud E, Armstrong W, Augier C, Avignone FT, Azzolini O, Barabash A, Bari G, Barresi A, Baudin D, Bellini F, Benato G, Beretta M, Bergé L, Biassoni M, Billard J, Boldrini V, Branca A, Brofferio C, Bucci C, Camilleri J, Capelli S, Cappelli L, Cardani L, Carniti P, Casali N, Cazes A, Celi E, Chang C, Chapellier M, Charrier A, Chiesa D, Clemenza M, Colantoni I, Collamati F, Copello S, Cremonesi O, J. Creswick R, Cruciani A, D'Addabbo A, D'Imperio G, Dafinei I, A. Danevich F, de Combarieu M, De Jesus M, de Marcillac P, Dell'Oro S, Di Domizio S, Dompé V, Drobizhev A, Dumoulin L, Fantini G, Faverzani M, Ferri E, Ferri F, Ferroni F, Figueroa-Feliciano E, Formaggio J, Franceschi A, Fu C, Fu S, Fujikawa BK, Gascon J, Giachero A, Gironi L, Giuliani A, Gorla P, Gotti C, Gras P, Gros M, Gutierrez TD, Han K, Hansen EV, Heeger KM, Helis DL, Huang HZ, Huang RG, Imbert L, Johnston J,

Juillard A, Karapetrov G, Keppel G, Khalife H, Kobychhev VV, Kolomensky YuG, Konovalov S, Liu Y, Loaiza P, Ma L, Madhukuttan M, Mancarella F, Mariam R, Marini L, Marnieros S, Martinecz M, Maruyama RH, Mauri B, Mayer D, Mei Y, Milana S, Misiak D, Napolitano T, Nastasi M, Navick XF, Nikkel J, Nipoti R, Nisi S, Nones C, Norman EB, Novosad V, Nutini I, O'Donnell T, Olivieri E, Oriol C, Ouellet JL, Pagan S, Pagliarone C, Pagnanini L, Pari P, Pattavina L, Paul B, Pavan M, Peng H, Pessina G, Pettinacci V, Pira C, Pirro S, V. Poda D, Polakovic T, Polischuk OG, Pozzi S, Previtali E, Puiu A, Ressa A, Rizzoli R, Rosenfeld C, Rusconi C, Sanglard V, Scarpaci JA, Schmidt B, Sharma V, Shlegel V, Singh V, Sisti M, Speller D, Surukuchi PT, Taffarello L, Tellier O, Tomei C, Tretyak VI, Tsymbaliuk A, Velazquez M, Vetter KJ, Wagaarachchi SL, Wang G, Wang L, Welliver B, Wilson J, Wilson K, Winslow LA, Xue M, Yan L, Yang J, Yefremenko V, Yumatov V, Zarytskyy MM, Zhang J, Zolotarova A, Zucchelli S, The CUPID Collaboration "Characterization of cubic $\text{Li}_2^{100}\text{MoO}_4$ crystals for the CUPID experiment". *The European Physical Journal C* **81** (2021) 104. <https://doi.org/10.1140/epjc/s10052-020-08809-8>

CUPID Collaboration, Armatol A, Armengaud E, Armstrong W, Augier C, Avignone FT, Azzolini O, Barabash A, Bari G, Barresi A, Baudin D, Bellini F, Benato G, Beretta M, Bergé L, Biassoni M, Billard J, Boldrini V, Branca A, Brofferio C, Bucci C, Camilleri J, Capelli S, Cappelli L, Cardani L, Carniti P, Casali N, Cazes A, Celi E, Chang C, Chapellier M, Charrier A, Chiesa D, Clemenza M, Colantoni I, Collamati F, Copello S, Cremonesi O, Creswick RJ, Cruciani A, D'Addabbo A, D'Imperio G, Dafinei I, Danevich FA, Combarieu M de, De Jesus M, Marcillac P de, Dell'Oro S, Di Domizio S, Dompè V, Drobizhev A, Dumoulin L, Fantini G, Faverzani M, Ferri E, Ferri F, Ferroni F, Figueroa-Feliciano E, Formaggio J, Franceschi A, Fu C, Fu S, Fujikawa BK, Gascon J, Giachero A, Gironi L, Giuliani A, Gorla P, Gotti C, Gras P, Gros M, Gutierrez TD, Han K, Hansen EV, Heeger KM, Helis DL, Huang HZ, Huang RG, Imbert L, Johnston J, Juillard A, Karapetrov G, Keppel G, Khalife H, Kobychhev VV, Kolomensky YuG, Konovalov S, Liu Y, Loaiza P, Ma L, Madhukuttan M, Mancarella F, Mariam R, Marini L, Marnieros S, Martinecz M, Maruyama RH, Mauri B, Mayer D, Mei Y, Milana S, Misiak D, Napolitano T, Nastasi M, Navick XF, Nikkel J, Nipoti R, Nisi S, Nones C, Norman EB, Novosad V, Nutini I, O'Donnell T, Olivieri E, Oriol C, Ouellet JL, Pagan S, Pagliarone C, Pagnanini L, Pari P, Pattavina L, Paul B, Pavan M, Peng H, Pessina G, Pettinacci V, Pira C, Pirro S, Poda DV, Polakovic T, Polischuk OG, Pozzi S, Previtali E, Puiu A, Ressa A, Rizzoli R, Rosenfeld C, Rusconi C, Sanglard V, Scarpaci J, Schmidt B, Sharma V, Shlegel V, Singh V, Sisti M, Speller D, Surukuchi PT, Taffarello L, Tellier O, Tomei C, Tretyak VI, Tsymbaliuk A, Velazquez M, Vetter KJ, Wagaarachchi SL, Wang G, Wang L, Welliver B, Wilson J, Wilson K, Winslow LA, Xue M, Yan L, Yang J, Yefremenko V, Yumatov V, Zarytskyy MM, Zhang J, Zolotarova A, Zucchelli S "Novel technique for the study of pileup events in cryogenic bolometers". *Physical Review C* **104** (2021) 015501. <https://doi.org/10.1103/PhysRevC.104.015501>

- A. Anikin, R. D. Schaller, G. P. Wiederrecht, E. R. Margine, I. I. Mazin, G. Karapetrov, "Ultrafast dynamics in normal and Charge Density Wave phase of 2H-NbSe_2 ", *Physical Review B* **102**, 205139 (2020)
- R. Hennings-Yeomans, C.L. Chang, J. Ding, A. Drobizhev, B.K. Fujikawa, S. Han, G. Karapetrov, Yu.G. Kolomensky, V. Novosad, T. O'Donnell, J.L. Ouellet, J. Pearson, T. Polakovic, D. Reggio, B. Schmidt, B. Sheff, V. Singh, R.J. Smith, G. Wang, B. Welliver, V. Yefremenko, J. Zhnag, "Controlling T_c of Iridium Films Using the Proximity Effect", *Journal of Applied Physics* **128**, 154501 (2020)

- T. Polakovic, W. R. Armstrong, G. Karapetrov, Z.-E. Meziari, and V. Novosad, “*Unconventional Application of Superconducting Nanowire Single Photon Detectors*”, *Nanomaterials* **10**, 1198 (2020)
- A. Wegner, J. Zhao, J. Li, J. Yang, A.A. Anikin, G. Karapetrov, K. Esfarjani, D. Louca, U. Chatterjee, “*Evidence of pseudo-Jahn-Teller Distortions in the Charge Density Wave Phase of 1T-TiSe₂*”, *Physical Review B* **101**, 195145 (2020)
- Su-Yang Xu, Q. Ma, Y. Gao, A. Kogar, A. Zong, A. M. M. Valdivia, T. H. Dinh, S.-M. Huang, B. Singh, C.-H. Hsu, T.-R. Chang, J. P. C. Ruff, K. Watanabe, T. Taniguchi, H. Lin, G. Karapetrov, D. Xiao, P. Jarillo-Herrero and N. Gedik, “*Spontaneous gyrotropic electronic order in a transition-metal dichalcogenide*”, *Nature* **578**, 545 (2020)
- T. Polakovic, W. R. Armstrong, V. Yefremenko, J.E. Pearson, K. Hafidi, G. Karapetrov, Z.-E. Meziari, and V. Novosad, “*Superconducting nanowires as high-rate photon detectors in strong magnetic fields*”, *Nuclear Inst. And Methods in Phys. Res. A* **959**, 163543 (2020)
- S. Chatterjee, A. Anikin, D. Ghoshal, J. L. Hart, Y. Li, S. Intikhab, D.A. Chareev, O.S. Volkova, A.N. Vasiliev, M. L. Taheri, N. Koratkar, G. Karapetrov, J. Snyder, “*Nanoporous metals from thermal decomposition of transition metal dichalcogenides*”, *Acta Materialia* **184**, 79 (2020)
- C. Di Giorgio, A. Scarfato, M. Longobardi, F. Bobba, M. Iavarone, V. Novosad, G. Karapetrov, and A.M. Cuccolo “*Quantitative Magnetic Force Microscopy Using Calibration on Superconducting Flux Quanta*”, *Nanotechnology* **30**, 314004 (2019)
- J. Zhao, K. Lee, J. Li, D.B. Lioi, G. Karapetrov, N. Trivedi, and U. Chatterjee “*Spectroscopic Fingerprints of Many-Body Renormalization in 1T-TiSe₂*”, *Phys. Rev. B* **100**, 045106 (2019)
- B.M. Lefler, T. Duchon, G. Karapetrov, J.Y Wang, C.M. Schneider, and S.J. May “*Reconfigurable Lateral Anionic Heterostructures in Oxide Thin Films via Lithographically Defined Topochemistry*”, *Phys. Rev. Mater.* **3**, 073802 (2019)
- A.V. Putilov, C. Di Giorgio, V.L. Vadimov, D. J. Trainer, E.M. Lechner, J.L. Curtis, M. Abdel-Hafez, O.S. Volkova, A.N. Vasiliev, D.A. Chareev, G. Karapetrov, A.E. Koshelev, A.Y. Aladyshkin, A.S. Mel'nikov, and M. Iavarone “*Vortex Core Properties and Vortex-Lattice Transformation in FeSe*”, *Phys. Rev. B* **99**, 144514 (2019)
- Y. Li T. Polakovic, J. Curtis, S.L. Shumlas, S. Chatterjee, S. Intikhab, D.A. Chareev, O.S. Volkova, A.N. Vasiliev, G. Karapetrov, and J. Snyder, “*Tuning the activity/stability balance of antion doped CoS_xSe_{2-x} dichalcogenides*”, *Journal of Catalysis* **366**, 50 (2018)
- T. Polakovic, S. Lendinez, J.E. Pearson, A. Hoffmann, V. Yefremenko, C.L. Chang, W. Armstrong, K. Hafidi, G. Karapetrov, and V. Novosad, “*Room temperature deposition of superconducting niobium nitride films by ion beam assisted sputtering*”, *Appl. Phys. Letters – Materials* **6**, 076107 (2018)
- M. Precner, T. Polakovic, Q. Qiao, D.J. Trainer, A.V. Putilov, C. Di Giorgio, I. Cone, Y. Zhu, X.X. Xi, M. Iavarone, G. Karapetrov, “*Evaluation of Metastable Defects and Its Effect on the Electronic Properties of MoS₂ Films*”, *Sci Reports* **8**, 6724 (2018)

- G.A. Saenz, G. Karapetrov, J. Curtis, A.B. Kaul, "Ultra-high Photoresponsivity in Suspended Metal-Semiconductor-Metal Mesoscopic Multilayer MoS_2 Broadband Detector from UV-to-IR with Low Schottky Barrier Contacts", *Sci Reports* **8**, 1276 (2018)
- Qiao Qiao, S. Zhou, J. Tao, J.-C. Zheng, L. Wu, S.T. Ciocys, M. Iavarone, D.J. Srolowitz, G. Karapetrov, Y. Zhu, "Anisotropic Charge Density Wave in Layered $1T\text{-TiSe}_2$ ", *Phys. Rev. Materials* **1**, 054002 (2017)
- G.S. Wang, J. Beeman, C.L. Chang, J.J. Ding, A. Drobizhiev, B.K. Fujikawa, K. Han, S. Han, R. Hennings-Yeomans, G. Karapetrov, Y.G. Kolomoisky, V. Novosad, T. O'Donnell, J.L. Oullet, J. Pearson, B. Sheff, V. Singh, S. Wagaarachchi, J.G. Wallig, V. Yefremenko, "Modeling Iridium-based Bilayer and Trilayer Transition-Edge Sensors", *IEEE Trans. Appl. Supercond.* **27**, 2100405 (2017)
- Z. Pribulova, Z. Medvecka, J. Kacmarcik, V. Komanicky, T. Klein, P. Rodiere, F. Levy-Bertrand, B. Michon, C. Marccnat, P. Husanikova, V. Cambel, J. Soltys, G. Karapetrov, S. Borisenko, D. Evtushinsky, H. Berger, P. Samuely, "Magnetic and Thermodynamic Properties of Cu_xTiSe_2 Single Crystals", *Phys. Rev. B* **95**, 174512 (2017)
- C. Di Giorgio, A.V. Putilov, D.J. Trainer, O.S. Volkova, A.N. Vasiliev, D. Chareev, G. Karapetrov, J.F. Zasadzinski, M. Iavarone, "Anisotropic Superconducting Gaps and Boson Mode in $\text{FeSe}_{1-x}\text{S}_x$ Single Crystals", *Journal of Supercond. and Novel Magn.* **30**, 763 (2017)
- D. B. Lioi, D.J. Gosztola, G.P. Wiederrecht, and G. Karapetrov, "Photon-induced selenium migration in TiSe_2 ", *Appl. Phys. Lett.* **110**, 081901 (2017)
- A. Kogar, G.A. de la Pena, S. Lee, Y. Feng, S.X.L. Sun, D.B. Lioi, G. Karapetrov, K.D. Finkelstein, J.P.C. Ruff, P. Abbamonte, "Observation of Charge Density Wave Incommensuration Near the Superconducting Dome in Cu_xTiSe_2 ", *Phys. Rev. Lett.* **118**, 027002 (2017)
- M. Maschek, S. Rosenkrantz, R. Hott, R. Heid, M. Merz, D.A. Zocco, A.H. Said, A. Atlas, G. Karapetrov, S. Zhu, J. van Wezel, F. Weber, "Superconductivity and Hybrid Soft Modes in TiSe_2 ", *Phys. Rev. B* **94**, 214507 (2016)
- C. Di Giorgio, F. Bobba, A.M. Cucolo, A. Scarfato, S.A. Moore, G. Karapetrov, D. D'Agostino, V. Novosad, V. Yefremenko, M. Iavarone, "Observation of Superconducting Vortex clusters in S/F/Hybrids", *Scientific Reports* **6**, 38557 (2016)
- Z. Medvecka, T. Klein, V. Cambel, J. Soltys, G. Karapetrov, F. Levy-Bertrand, B. Michon, C. Marccnat, Z. Pribulova, and P. Samuely, "Observation of a transverse Meissner effect in Cu_xTiSe_2 single crystals", *Phys. Rev. B* **93**, 100501 (2016)
- S.A. Moore, G. Plummer, J. Fedor, J.E. Pearson, V. Novosad, G. Karapetrov, and M. Iavarone, "Doppler-scanning tunneling microscopy current imaging in superconductor-ferrimagnet hybrids", *Appl. Phys. Lett.* **108**, 042601 (2016)
- S.A. Moore, J.L. Curtis, C. Di Giorgio, E. Lechner, M. Abdel-Hafiez, O.S. Volkova, A.N. Vasiliev, D.A. Chareev, G. Karapetrov and M. Iavarone, "Evolution of the superconducting properties in $\text{FeSe}_{1-x}\text{S}_x$ ", *Phys. Rev. B* **92**, 235113 (2015)

- J. Tobik, V. Cambel and G. Karapetrov, "Asymmetry in Time Evolution of Magnetization in Magnetic Nanostructures" *Scientific Reports* **5**, 12301 (2015)
- M. Abdel-Hafez, Y.Y. Zhang, Z.Y. Cao, C.G. Duan, G. Karapetrov, V.M. Pudalov, V.A. Vlasenko, A.V. Sadakov, D.A. Knyazev, T.A. Romanova, D.A. Charcev, O.S. Volkova, A.N. Vasiliev, and X.J. Chen, "Superconducting Properties of Sulfur-doped Iron Selenide" *Phys. Rev. B* **91**, 165109 (2015)
- M. Iavarone, S.A. Moore, J. Fedor, V. Novosad, J.A. Pearson, and G. Karapetrov, "Influence of Domain Width on Vortex Nucleation in Superconductor/Ferromagnet Hybrid", *J. Supercond. Novel Magn.* **28**, 1107 (2015)
- U. Chatterjee, J. Zhao, M. Iavarone, R. Di Capua, J.P. Castellan, G. Karapetrov, C.D. Malliakas, M.G. Kanatzidis, H. Claus, J.P.C. Ruff, F. Weber, J. van Wezel, J.C. Campuzano, R. Osborn, M. Randeria, N. Trivedi, M.R. Norman, and S. Rosenkranz, "Emergence of Charge Density Wave State of $2H-NbSe_2$ ", *Nature Comm.* **6**, 6313 (2015)
- D. Mancusi, C. Di Giorgio, F. Bobba, A. Scarfato, A.M. Cucolo, M. Iavarone, S.A. Moore, G. Karapetrov, V. Novosad, V. Yefremenko, S. Pace, M. Polichetti, "Magnetic Pinning in a Superconducting Film by a Ferromagnetic Layer with Stripe Domains", *Supercond. Sci Tech* **27**, 125002 (2014)
- M. Iavarone, S.A. Moore, J. Fedor, S.T. Ciocys, G. Karapetrov, J. Pearson, V. Novosad, S.D. Bader, "Visualizing Domain Wall and Reverse Domain Superconductivity", *Nature Comm.* **5**, 4766 (2014)
- J. Kacmarcik, Z. Pribulova, V. Paluchova, P. Husanikova, G. Karapetrov, V. Komanicky, P. Samuely, "Specific Heat Study of Superconductivity in $Cu_{0.061}TiSe_2$ " *Acta Polonica A* **126**, 322 (2014)
- P. Husanikova, V. Cambel, J. Fedor, J. Soltys, and G. Karapetrov, "Magnetization Studies of $Cu_{0.058}TiSe_2$ Near a Quantum Critical Point", *Acta Polonica A* **126**, 336 (2014)
- Z. Pribulova, Z. Medvecká, J. Kacmarcik, V. Komanicky, T. Klein, P. Husanikova, V. Cambel, J. Soltys, G. Karapetrov, and P. Samuely, "Local Magnetometry of $Cu_{0.064}TiSe_2$ ", *Acta Polonica A* **126**, 370 (2014)
- F. Bobba, C. Di Giorgio, A. Scarfato, M. Longobardi, M. Iavarone, S.A. Moore, G. Karapetrov, V. Novosad, V. Yefremenko, A.M. Cucolo, "Vortex-antivortex Coexistence in Nb-based Superconductor/Ferromagnet Heterostructures", *Phys. Rev. B* **89**, 214502 (2014)
- P. Husanikova, J. Fedor, J. Derer, J. Soltys, V. Cambel, M. Iavarone, S.J. May, and G. Karapetrov, "Magnetization properties and vortex phase diagram of Cu_xTiSe_2 single crystals," *Phys. Rev. B* **88**, 174501 (2013)
- J. Kacmarcik, Z. Pribulova, V. Paluchova, P. Szabo, P. Husanikova, G. Karapetrov, P. Samuely, "Heat capacity of single crystal Cu_xTiSe_2 superconductors", *Phys. Rev. B* **88**, 020507 (R) (2013)
- J.P. Castellan, S. Rosenkranz, R. Osborn, Q. Li, K.E. Gray, X. Luo, U. Welp, G. Karapetrov, J.P.C. Ruff, and J. van Wezel, "The Chiral Phase Transition in Charge Ordered $1T-TiSe_2$ ", *Phys. Rev. Lett.* **110**, 196404 (2013)

- V. Cambel, J. Tobik, J. Soltys, J. Fedor, M. Precner, S. Gazi, and G. Karapetrov, "The influence of shape anisotropy on vortex nucleation in Pacman-like nanomagnets", *J. Magn. Magn. Mat.* **336**, 29 (2013)
- V. Cambel, M. Precner, J. Fedor, J. Soltys, J. Tobik, T. Scepka, and G. Karapetrov, "High Resolution Switching Magnetization Magnetic Force Microscopy", *Appl. Phys. Lett.* **102**, 062405 (2013)
- J. Tobik, V. Cambel and G. Karapetrov, "Dynamics of Vortex Nucleation in Nanomagnets with Broken Symmetry", *Phys. Rev. B.* **86**, 134433 (2012)
- M. Iavarone, A. Scarfato, F. Bobba, M. Longobardi, S.A. Moore, G. Karapetrov, V. Novosad and V. Yefremenko, A.M. Cucolo "Vortex Confinement in Planar Superconductor/Ferromagnet Hybrid Structures", *IEEE Trans. Magn.* **48**, 3257 (2012)
- A.M. Cucolo, A. Scarfato, M. Iavarone, M. Longobardi, F. Bobba, G. Karapetrov, V. Novosad and V. Yefremenko, "Visualizing Vortex Dynamics in Py/Nb Thin Film Hybrids by Low Temperature Magnetic Force Microscopy", *J. Supercond. Novel Magn.* **25**, 2167 (2012)
- V. Cambel and G. Karapetrov, "Micromagnetic Simulations of Pac-Man-Like nanomagnets for Memory Applications", *J. Nanosci. Nanotechnol.* **12**, 7422 (2012)
- G. Karapetrov, V. Yefremenko, G. Mihajlovic, J.E. Pearson, M. Iavarone, V. Novosad, and S.D. Bader, "Evidence of Vortex Jamming in Abrikosov Vortex Flux Flow Regime", *Phys. Rev. B* **86**, 054524 (2012)
- M. Iavarone, R. Di Capua, X. Zhang, M. Golalikhani, S.A. Moore, G. Karapetrov, "Evolution of Charge density Wave State in Cu_xTiSe_2 ", *Phys. Rev. B* **85**, 155103 (2012)
- F. Weber, S. Rosenkranz, J.-P. Castellan, R. Osborn, G. Karapetrov, R. Hott, R. Heid, K.-P. Bohnen, and A. Alatas, "Electron-Phonon Coupling and the Soft Phonon Mode in $TiSe_2$ ", *Phys. Rev. Lett.* **107**, 266401 (2011)
- V. Cambel and G. Karapetrov, "Control of vortex chirality and polarity in magnetic nanodots with broken rotational symmetry", *Phys. Rev. B* **84**, 014424 (2011)
- M. Iavarone, A. Scarfato, F. Bobba, M. Longobardi, G. Karapetrov, V. Novosad, V. Yefremenko, F. Giubileo, and A.M. Cucolo, "Imaging the spontaneous formation of vortex-antivortex pairs in planar superconductor/ferromagnet hybrid structures", *Phys. Rev. B* **84**, 024506 (2011)
- C. Wang, D. van der Vliet, K.L. More, N.J. Zaluzec, S. Peng, S.H. Sun, H. Daimon, G.F. Wang, J. Greeley, J. Pearson, A.P. Paulikas, G. Karapetrov, D. Strmčnik, N.M. Marković, V.R. Stamenković, "Multimetallic $Au/FePt_3$ nanoparticles as highly durable electrocatalyst", *Nano Lett.* **11**, 909 (2011)
- P. Husnikova, J. Knomarik, V. Cambel, and G. Karapetrov, "Superconducting and normal state parameters of single crystal $Cu_{0.10}TiSe_2$ ", *Solid State Comm.* **151**, 227 (2011)

- M. Iavarone, G. Karapetrov, J. Fedor, D. Rosenmann, "The spectroscopic signature of the Co magnetic state in Co_xNbSe_2 superconducting single crystals", *Superc. Sci. Tech.* **24**, 024010 (2011)
- G. Karapetrov, A. Belkin, M. Iavarone, V. Yefremenko, J.E. Pearson, R. Divan, V. Cambel, and V. Novosad, "Dimensionality crossover in vortex dynamics of magnetically coupled F-S-F hybrids", *Superc. Sci. Tech.* **24**, 024012 (2011)
- G. Karapetrov, A. Belkin, M. Iavarone, J. Fedor, V. Novosad, M.V. Milosevic, F.M. Peeters, "Anisotropic Superconductivity and Vortex Dynamics in Magnetically Coupled F/S and F/S/F Hybrids", *J. Supercond. Novel Magn.* **24**, 905 (2011)
- B. Genorio, D. Strmcnik, R. Subbaraman, D. Tripkovic, G. Karapetrov, V.R. Stamenkovic, S. Pejovnik, N.M. Markovic, "Selective catalysts for the hydrogen oxidation and oxygen reduction reactions by patterning of platinum with calix[4]arene molecules", *Nature Mat.* **9**, 998 (2010)
- V. Cambel, P. Elias, D. Gregusova, J. Martaus, J. Fedor, G. Karapetrov, V. Novosad, "Magnetic elements for switching magnetization magnetic force microscopy tips", *J. Magn. Mag. Mater.* **322**, 2715 (2010)
- D. DiCastro, A. Kanigel, A. Maisuradze, A. Keren, P. Postorino, D. Rosenmann, U. Welp, G. Karapetrov, H. Claus, D.G. Hinks, A. Amato, J.C. Campuzano, "Muon spin rotation study of the magnetic penetration depth in the intercalated graphite superconductor CaC_6 ", *Phys. Rev. B* **82**, 014530 (2010)
- V. Cambel, P. Elias, D. Gregusova, J. Fedor, J. Martaus, G. Karapetrov, V. Novosad, I. Kostic, "Novel magnetic tips developed for the switching magnetization magnetic force microscopy", *J. Nanosci. Nanotech.* **10**, 4477 (2010)
- A. Belkin, V. Novosad, M. Iavarone, R. Divan, J. Hiller, T. Proslie, J.E. Pearson and G. Karapetrov, "Giant Conductance Anisotropy in Magnetically Coupled F/S/F Structures", *Appl. Phys. Lett.* **96**, 092513 (2010)
- M. Iavarone, G. Karapetrov, J. Fedor, D. Rosenmann, T. Nishizaki and N. Kobayashi, "Local Effect of Magnetic Impurities on Superconductivity in Co_xNbSe_2 and Mn_xNbSe_2 Single Crystals", *J. Phys. Cond. Matt.* **22**, 015501 (2010)
- G.W. Ataklti, A.V. Silhanek, J. Van de Vondel, W. Gillijns, A. Belkin, G. Karapetrov, V.V. Moshchalkov, "Field polarity dependent nucleation of superconductivity in quasi-one-dimensional magnetic templates", *Physica C* **470**, 860 (2010)
- V. Komanicky, H. Iddir, K.C. Chang, A. Menzel, G. Karapetrov, D. Hennessy, P. Zapol and H. You, "Shape-Specific Reactivity of Tailored Platinum Nanoparticle Catalysts", *J. Am. Chem. Soc.* **131**, 5732 (2009)
- G. Karapetrov, M.V. Milosevic, M. Iavarone, J. Fedor, A. Belkin, V. Novosad and F. Peeters, "Transverse Instabilities of Multiple Vortex Chains in Superconductor-Ferromagnet Bilayers", *Phys. Rev. B – Rapids* **80**, 180506 (2009)

- G. Karapetrov, A. Belkin, V. Novosad, M. Iavarone, J. Fedor, J. E. Pearson and A. Troncilli, "Adjustable Superconducting Anisotropy in Superconductor-Ferromagnet Bilayers", IEEE Trans. Appl. Supercond. **19**, 3471 (2009)
- D. Strnecnik, D. Tripković, D. van der Vliet, K.C. Chang, V. Komanicky, H. You, G. Karapetrov, J. Greeley, V. Stamenković and N. M. Marković, "Unique Activity of Platinum Ad-islands in the CO Electrooxidation Reaction", J. Am. Chem. Soc. **130**, 15332 (2008)
- M. Iavarone, R. Di Capua, G. Karapetrov, A. E. Koshelev, D. Rosenmann, H. Claus, C. D. Malliakas, M. G. Kanatzidis, T. Nishizaki, and N. Kobayashi, "Effect of Magnetic Impurities on the Vortex Lattice Properties in NbSe₂ Single Crystals", Phys. Rev. B **78**, 174518 (2008)
- A. Belkin, V. Novosad, M. Iavarone, J. E. Pearson, J. Fedor, A. Troncilli-Petrea, G. Karapetrov, "Tunable Transport in Magnetically Coupled MoGe/Permalloy Hybrids", Appl. Phys. Lett. **93**, 072510 (2008)
- A. Belkin, V. Novosad, M. Iavarone, J. E. Pearson, G. Karapetrov, "Superconductor - Ferromagnet Bilayers: Influence of Magnetic Domain Structure on Vortex Dynamics", Phys. Rev. B – Rapids **77**, 180506 (2008)
- V. Vlasko-Vlasov, U. Welp, G. Karapetrov, V. Novosad, D. Rosenmann, M. Iavarone, A. Belkin, and W.K. Kwok, "Guiding Superconducting Vortices with Magnetic Domain Walls", Phys. Rev. B – Rapids **77**, 134518 (2008)
- A. Kanigel, D. di Castro, A. Keren, P. Postorino, D. Rosenmann, U. Welp, G. Karapetrov, H. Claus, D.G. Hinks, A. Amato, J. C. Campuzano "Probing the Vortex State in CaC₆ Using Transverse Field Muon Spin Rotation", cond-mat/0803.4513 (2008)
- V. Cambel, G. Karapetrov, V. Novosad, E. Bartolome, D. Gregusova, J. Fedor, R. Kudela, J. Soltys "Novel Hall sensors developed for magnetic field imaging systems", J. Magn. Magn. Mat. **316**, 232 (2007)
- M. Iavarone, G. Karapetrov, J. Fedor, D. Rosenmann, W.K. Kwok, "Vortex lattice transitions in artificially engineered NbSe₂ single crystals observed by STM", Physica C **460**, 952 (2007)
- A. Belkin, J. Fedor, P. Pankowski, M. Iavarone, V. Novosad, G. Karapetrov, V. Cambel, D. Gregusova, R. Kudela, "Switching of Magnetic Domains in Permalloy Microstructures Using Two-Dimensional Electron Gas", Appl. Phys. Lett. **89**, 182513 (2006)
- A.V. Goncharov, A.A. Zhukov, V.V. Metlushko, G. Bordignon, H. Fangohr, C.H. de Groot, J. Unguris, W.C. Uhlig, G. Karapetrov, B. Ilic, P.A.J. de Groot "Anisotropy of Magnetization Reversal and Magnetoresistance in Square Arrays of Permalloy Nano-Rings", IEEE Trans. Magn. **42**, 2948 (2006)
- A.A. Zhukov, M.A. Ghanem, A. V. Goncharov, R. Boardman, V. Novosad, G. Karapetrov, H. Fangohr, P.N. Bartlett, P.A.J. de Groot "Oscillatory Thickness Dependence of the Coercive Field in Magnetic 3D Anti-Dot Arrays", Appl. Phys. Lett. **88**, 062511 (2006)
- R. Xie, D. Rosenmann, A. Rydh, H. Claus, G. Karapetrov, W.K. Kwok, U. Welp, "Anisotropic Superconducting Phase Diagram of C₆Ca", Physica C **439**, 43 (2006)

- A. A. Zhukov, V. V. Metlushko, G. Bordignon, H. Fangohr, G. Karapetrov, P. A. J. de Groot, "In-Plane Anisotropy of Coercive Field in Permalloy Square Ring Arrays", *J. Appl. Phys.* **99**, 08Q508 (2006)
- G. Karapetrov, J. Fedor, M. Iavarone, D. Rosenmann, W. K. Kwok, "Direct Observation of Vortex Lattice Transitions in Mesoscopic Superconducting Single Crystals Using STM", *Physica C* **437-38**, 127 (2006)
- W.K. Kwok, G. Karapetrov, U. Welp, A. Rydh, G. W. Crabtree, L. Paulius, J. Figueras, T. Puig, X. Obradors, "New Transition in the Vortex Liquid State of $YBa_2Cu_3O_{7-x}$ ", *Physica C* **437-438**, 176 (2006)
- M. Iavarone, G. Karapetrov, A. Menzel, V. Komanicky, H. You, W.K. Kwok, P. Orgiani, V. Ferrando, X.X. Xi, "Characterization of Off-axis MgB_2 Epitaxial Thin Films for Planar Junctions", *Appl. Phys. Lett.* **87**, 242506 (2005)
- G. Karapetrov, J. Fedor, M. Iavarone, M.T. Marshall, R. Divan, "Imaging of Vortex States in Mesoscopic Superconductors", *Appl. Phys. Lett.* **87**, 162515 (2005)
- G. Karapetrov, J. Fedor, M. Iavarone, D. Rosenmann, W.K. Kwok, "Direct Observation of Geometrical Phase Transitions in Mesoscopic Superconductors by STM", *Phys Rev. Lett.* **95**, 167002 (2005)
- A. A. Zhukov, M.E. Kiziroglou, A.V. Goncharov, R. Boardman, M.A. Ghanem, M. Abdelsalam, V. Novosad, G. Karapetrov, X. Li, H. Fangohr, P. A. J. de Groot, P. N. Bartlett, P. A. J. de Groot "Shape-Induced Anisotropy in Antidot Arrays from Self-Assembled Templates", *IEEE Trans. Magn.* **41**, 3598 (2005)
- G.W. Crabtree, W.K. Kwok, R. Olsson, G. Karapetrov, L. Paulius, "Anisotropic Pinning in the Vortex Liquid Phase of YBCO", *Physica C* **426**, 14 (2005)
- A.A. Zhukov, A.V. Goncharov, P. A. J. de Groot, M.A. Ghanem, I. S. El-Hallag, R. Boardman, H. Fangohr, V. Novosad, G. Karapetrov, "Oscillatory Thickness Dependence of the Coercive Field in Three-Dimensional Anti-Dot Arrays from Self-assembly", *J. Appl. Phys.* **97**, 3598 (2005)
- A.A. Zhukov, E.T. Filby, A.V. Goncharov, M.A. Ghanem, P.N. Bartlett, R. Boardman, H. Fangohr, V. Metlushko, V. Novosad, G. Karapetrov, P.A.J. de Groot, "Self-assembly Routes Towards Creating Superconducting and Magnetic Arrays", *J. Low Temp. Phys.* **139**, 339 (2005)
- M. Iavarone, G. Karapetrov, A.E. Koshelev, W.K. Kwok, G.W. Crabtree, W.N. Kang, E.-M. Choi, H.J. Kim, S.-I. Lee "STM Tunneling Spectroscopy in MgB_2 Thin Films: the Role of Band Structure in Tunneling Spectra", *Supercond. Sci. and Tech.* **17** p.S106 (2004)
- M. Iavarone, G. Karapetrov, A. Koshelev, W.K. Kwok, D.G. Hinks, G.W. Crabtree, W.N. Kang, E.-M. Choi, H.J. Kim, S.-I. Lee "MgB₂: Directional Tunneling and Two-Band Superconductivity", *Supercond. Sci. and Tech.* **16** p.156 (2003)
- G. Karapetrov, M. Iavarone, A.E. Koshelev, W.K. Kwok, G.W. Crabtree, D.G. Hinks, S. I. Lee "Momentum-Dependent Scanning Tunneling Spectroscopy in MgB_2 ", *Physica C* **388**, p.141 (2003)

- U. Welp, A. Rydh, G. Karapetrov, W.K. Kwok, G.W. Crabtree, C. Marcenat, L. Paulius, T. Klein, J. Marcus, K.H.P. Kim, C.U. Jung, H.S. Lee, B. Kang, S.I. Lee, "Superconducting phase diagram of single crystal MgB_2 ", *Physica C* **387**, p.137 (2003)
- G. Karapetrov, U. Welp, A. Rydh, M. Iavarone, W. K. Kwok, G.W. Crabtree, Ch. Marcenat, L. Paulius, T. Klein, J. Marcus, K. H. P. Kim, C.U. Jung, H.-S. Lee, B. Kang, S.-I. Lee "Phase Diagram of Single Crystal MgB_2 ", *J. Low Temp. Phys.* **131**, p.1237-1244 (2003)
- U. Welp, A. Rydh, G. Karapetrov, W. K. Kwok, G. W. Crabtree, Ch. Marcenat, L. Paulius, T. Klein, J. Marcus, K.H.P. Kim, C.U. Jung, H.-S. Lee, B. Kang, S.-I. Lee "Superconducting Transition and Phase Diagram of Single Crystal MgB_2 ", *Phys. Rev. B* **67**, 012505 (2003)
- U. Welp, A. Rydh, G. Karapetrov, W.K. Kwok, G.W. Crabtree, C. Marcenat, L. Paulius, L. Lyard, T. Klein, J. Marcus, S. Blanchard, P. Samuely, P. Szabo, K.H.P. Kim, C.U. Jung, H.S. Lee, B. Kang, S.I. Lee, "Superconducting phase diagram of single crystal MgB_2 ", *Physica C* **385**, p.154 (2003)
- M. Iavarone, G. Karapetrov, A.E. Koshelev, W.K. Kwok, G.W. Crabtree, D.G. Hinks, R. Cook, W.N. Kang, E.-M. Choi, H.J. Kim, S.-I. Lee "Directional Scanning Tunneling Spectroscopy in MgB_2 ", *Physica C* **385**, p.215 (2003)
- W.K. Kwok, R. J. Olsson, G. Karapetrov, U. Welp, V. Vlasko-Vlasov, K. Kadowaki, G. W. Crabtree "Modification of Vortex Behavior Through Heavy Ion Lithography" Proc. of the 2001 US-Japan Workshop on High Temperature Superconductors, Santa Fe, NM, Dec. 2-5, 2001, *Physica C* **382** p.137 (2002)
- M. Iavarone, M. Salluzzo, R. Di Capua, M. G. Maglione, R. Vaglio, G. Karapetrov, W. K. Kwok, G. Crabtree "STM Tunneling Spectroscopic Studies of $YNd_xBa_{2-x}Cu_3O_{7-\delta}$ Thin Films", *Phys. Rev. B* **65** 214506 (2002)
- M. Iavarone, G. Karapetrov, W.K. Kwok, G.W. Crabtree, D.G. Hinks, W.N. Kang, Eun-Mi Choi, Hyun Jung Kim, Hyeong-Jin Kim and S. I. Lee, "Two-band Superconductivity in MgB_2 ", *Phys. Rev. Lett.* **89**, p.187002 (2002)
- W.K. Kwok, R.J. Olsson, G. Karapetrov, U. Welp, V. Vlasko-Vlasov, K. Kadowaki, and G.W. Crabtree, "Modification of Vortex Behavior through Heavy Ion Lithography", *Physica C* **382**, p. 137 (2002)
- G. Karapetrov, M. Iavarone, W.K. Kwok, G.W. Crabtree, and D.G. Hinks, "Scanning Tunneling Spectroscopy in MgB_2 ", *Phys. Rev. Lett.* **86**, p.4374-4377 (2001)
- W.K. Kwok, R.J. Olsson, G. Karapetrov, L.M. Paulius, W.G. Moulton, D.J. Hofman, G.W. Crabtree, "Effect of defects on the critical points in $YBa_2Cu_3O_{7-\delta}$ ", *Physica C* **341**, p.953 (2000)
- G. Karapetrov, V. Cambel, W.K. Kwok, R. Nikolova, G.W. Crabtree, "Contactless Characterization of Melt-Textured Superconducting Junctions using Micro-Hall Sensor Arrays", *Physica B* **284-288**, p. 2065 (2000)

- G.W. Crabtree, W.K. Kwok, R.J. Olsson, G. Karapetrov, L.M. Paulius, A. Petrean, V. Tobos, and W.G. Moulton, "Disordered Vortex Phases in $YBa_2Cu_3O_{7-\delta}$ ", J. Supercond. **13**, p.741 (2000)
- G.W. Crabtree, W.K. Kwok, L.M. Paulius, A. Petrean, R.J. Olsson, G. Karapetrov, V. Tobos, and W.G. Moulton, "Effect of Disorder on the Critical Points in the Vortex Phase Diagram of $YBa_2Cu_3O_{7-\delta}$ ", Physica C **332**, p.71 (2000)
- W.K. Kwok, R.J. Olsson, G. Karapetrov, L.M. Paulius, W.G. Moulton, D.J. Hofman, and G.W. Crabtree, "Critical Points in Heavily Irradiated Untwinned $YBaCuO$ Crystals", Phys. Rev. Lett. **84**, p.3706 (2000)
- V. Cambel, G. Karapetrov, P. Eliáš, S. Hasenöhrl, W.K. Kwok, J. Krause, and J. Maska, "Approaching the pT range with 2DEG InGaAs/InP Hall sensor at 77 K", Microelectronic Engineering **51-2**, p.333-342 (2000)
- G. Karapetrov, V. Cambel, W.K. Kwok, R. Nikolova, G.W. Crabtree, H. Zheng, and B.W. Veal, "Contactless Characterization of Melt-Textured Superconducting Junctions using Micro-Hall Sensor Arrays", J. of Appl. Phys. **86**, p.6282 (1999)
- I.S. Aranson, D. Blair, W.K. Kwok, G. Karapetrov, U. Welp, G. W. Crabtree, V. M. Vinokur, and L. S. Tsimring, "Controlled Dynamics of Interfaces in a Vibrated Granular Layer", Phys. Rev. Lett. **82**, p.731 (1999)
- G. Karapetrov and J. Tate, "Evidence for 3D flux Creep in Thin Film $BSCCO-2212$ ", Phys. Rev. B **52**, p.3776 (1995)
- J. Roberts, B.A. Hermann, G. Karapetrov, D.W. Tom, A. Spofford, and J. Tate, "Field Dependence of the Current-Voltage Characteristics of Thin-Film $YBa_2Cu_3O_x$ at Low Magnetic Fields", Physica B **194-196**, p.1889-90 (1994)
- A.A. Zhukov, D.A. Komarkov, G.T. Karapetrov, S.N. Gordeev, and R.I. Antonov, "Critical Currents of Granular $YBa_2Cu_3O_x$ Superconductors", Superc. Sci. Techn. **5**, p.338 (1992)
- A.A. Zhukov, V.V. Moshchalkov, V.D. Kusnetsov, V.V. Metlushko, G.T. Karapetrov, E.V. Pechen, I.V. Timashev. "Magnetic Properties of Epitaxial $YBa_2Cu_3O_x$ Films", Sov. Phys.-JETP **73**, p.334-45 (1991)
- A.A. Zhukov, D.A. Komarkov, G.T. Karapetrov. "Critical Currents of Granular $YBa_2Cu_3O_x$ superconductors", Supercon. Sci. Technol. **5**, p.338-45 (1991)
- A.A. Zhukov, V.V. Moshchalkov, V.V. Metlushko, G.T. Karapetrov, and V.I. Voronkova. "The Peak-Effect in Untwinned $TmBa_2Cu_3O_x$ Single Crystals", Physica C **185-189**, p.2431 (1991)
- V.V. Moshchalkov, A.A. Zhukov, G. Karapetrov, V.D. Kusnetsov, V.V. Metlushko, V.I. Voronkova, and V.K. Yanovsky, "The Anomalous Magnetization of $TmBa_2Cu_3O_x$ Superconducting Single Crystals", Physica B **169**, p.653 (1991)
- A.A. Zhukov, D.A. Komarkov, and G. Karapetrov, "Magnetic Field and Temperature Dependence of Critical Current and Magnetization in $YBa_2Cu_3O_x$ Ceramics", Physica B **169**, p.661 (1991)

V.V. Moshchalkov, A.A. Zhukov, I.V. Gladyshev, S.N. Gordeev, G.T. Karapetrov, V.D. Kusnetsov, V.V. Metlushko, V.A. Murashov, V.I. Voronkova, V.K. Yanovskii, "*First Critical Fields, Critical Currents and Flux Creep of $TmBa_2Cu_3O_x$ and $YBa_2Cu_3O_x$ Superconducting Single Crystals*", J. Magn. Magn. Mat. **90-91**, p.611 (1990)

A.A. Zhukov, D.A. Komarkov, V.V. Moshchalkov, G.T. Karapetrov, R.I. Antonov, S.N. Gordeev, "*Magnetic Field Dependence of Ceramics Critical Current and Magnetization in $YBa_2Cu_3O_x$* ", J. Magn. Magn. Mat. **90-91**, p.644 (1990)

PUBLICATIONS IN INTERNATIONAL BOOKS

“Superconducting Vortex-Antivortex Pairs: Nucleation and Confinement in Magnetically Coupled Superconductor-Ferromagnet Hybrids”, C. Di Giorgio, D. D’Agostino, A.M. Cucolo, M. Iavarone, A. Scarfato, G. Karapetrov, S.A. Moore, M. Polichetti, D. Mancusi, S. Pace, V. Novosad, V. Yefremenko and F. Bobba in the book “Vortex Dynamics and Optical Vortices”, ISBN 978-953-51-2930-1, Edited by Hector Perez-de-Tejada

“Mesoscopic Effects in Superconductor-Ferromagnet Hybrids”, G. Karapetrov, S.A. Moore, and M. Iavarone chapter in The Oxford Handbook of Small Superconductors, edited by A. V. Narlikar, Oxford University Press, 2016, ISBN 978-0-19-873816-9

“Scanning Tunneling Spectroscopy in MgB₂”, G. Karapetrov, M. Iavarone, W. K. Kwok, G. W. Crabtree and D. Hinks chapter in the “Studies of High T_c Superconductors” edited by Narlikar Nova Science Publishers Inc. Chapter 11 in book series: Superconducting Magnesium Diboride, p. 221-228 (2002)



PERSONAL AND CONFIDENTIAL

Zewail City of Science and Technology hereby appoints Dr. Abdou Hassanien as a Full Professor at the University of Science and Technology and Director of the Center for Nano Technology (CNT) effective August 1, 2015. The Appointee will directly report to the Vice Chair for Academic Affairs. This is a 2 years contract, which can be renewed pending evaluation of teaching, research and services to the City.

- 1- The Appointee agrees to lead the development of the Center for Nano Technology (CNT), and to teach courses in his field of competence as needed at the University of Science and Technology. Appointee agrees as well to perform other departmental activities pertinent to the academic profession, such as, committee assignments, student advising and appropriate administrative duties.
- 2- For compensation of the Appointee's services, Zewail City will provide an annual net salary of 456,000 EGP, paid on 12 installments.
- 3- Tuition is provided for children of the Appointee who is academically qualified for admission to the University of Science and Technology.
- 4- Appointee and his Spouse and children are entitled to 50 % coverage for medical insurance. The other 50% will be deducted from Appointee's monthly pay. Enrollment is only possible during the first month in service.
- 5- In conformity with the Social Insurance Regulations, Zewail City is required to issue a check payable to the Social Insurance Authority covering Appointee's and Zewail City's social insurance contributions. It is important to note that both contributions are based on the appointee's gross monthly salary in accordance with Social Insurance Law.
- 6- It is agreed that this document constitutes the entire agreement between Zewail City of Science and Technology and the Appointee.
- 7- In case of resignation the Appointee is required to give an advance 2 months notice, the end of service will be complete when he or she performs a complete handover that includes ongoing projects; return of all City's assets and providing all accumulated documents in soft/hard copy format, as requested by the Vice Chair for Academic Affairs office.
- 8- If the terms of this agreement are acceptable, the Appointee should sign all copies, retain one, and return the other to the office of the Vice Chair for Academic Affairs office.

Vice Chair for Academic Affairs

Name: S. H. Abayya
Signature: [Handwritten Signature]
Date: 18.06.2015

I hereby confirm that I accept this contract and its terms.

Appointee Name: Abdou Hassanien
Signature: _____
Date: 18.06.2015

[Handwritten Signature: Hassanien]

CIRRCULUM VITAE

- Name: Abdelrahim Hassanién
 - Current Institution: Jozef Stefan Institute, Ljubljana, Slovenia
 - Address: Murnikova 5, SI-1000 Ljubljana
 - Cell no.: +386-41-299956
 - Email: abdou.hassanién@ijs.si or abdou.hassanién@gmail.com
 - Highest academic position: Full Professor, Director of Center of Nanotechnology
 - Field of research: Condensed matter Physics
 - Focused research area: Nanoscience
 - H-index: 15 in 37 refereed publications with 899 citations
(<http://www.scopus.com/authid/detail.url?origin=AuthorProfile&authorId=55936393200&zone=>)
- Most cited article in Nature Nanotechnology 2007 with 245 citations.

Education:

Nov. 1996-May 1997

Post-doctoral fellow at NCSR Demokritos Athens, Greece.
Research Theme: atomic force microscopy and spectroscopy of cement hardening process in collaboration with TITAN cement company in Athens, Greece.
Host: Prof. Dr. Fani Milia.

Oct. 1992- Oct. 1996

Ph.D. in Physics, University of Ljubljana, Slovenia
Research Subject: Photo-structural properties epitaxial C₆₀ thin films. Molecular resolved properties by scanning probe technique (SPM), transport in TDAE- C₆₀ thin films. High quality epitaxial growth of fullerenes thin film.
Thesis advisor: Prof. dr. Dragan Mihailovic
Title: Transport and structural properties of some fullerenes compounds.

Sept. 1991-Sept 1992

Diploma in Theoretical condensed Matter Physics, Abdus Salam international center for theoretical physics, Trieste, Italy.
Research subject: Condensed Matter Physics, surface science, chemisorption of metal atoms on surfaces.
Thesis advisor: Prof. dr. Vijay Kumar
Title: Chemisorptions of Ni on Cu surfaces.

Sept. 1988- May. 1991

M.Sc. in condensed matter physics, University of Ain Shams, Cairo Egypt.
Research subject: Solid State Physics, Chalcogenide glasses, kinetics of amorphous semiconductors phase change versus external impacts such as heat

Host: Prof. Esko Kauppinen and Prof. Peter Liljeroth department of applied Physics, Aalto University, Finland.
Research Theme: Proximity effect of d-wave superconductors, Charge transport in carbon nanotube thin film transistor.

Jan 2017- Dec 2017 (funded by Collaborative Research Center (SFB), 677)

Visiting Professor, Kiel University, Kiel Germany.
Host: Prof. Franz Faupel, Institute for material Science, Kiel University.
Research Theme: Nanoscale mapping of Light harvesting metamaterials.

Oct. 2011 - Oct. 2012:

Visiting Senior researcher at Aalto University, Espoo, Finland.
Research themes: Structure and electronic properties of active carbon nanotube devices; effect of network morphology on transport properties of carbon nanotube thin film transistor. We also have employed a new technique that combined STM or AFM with HRTEEM to characterized interface properties and their effect on Schottky barrier height. We studied the effect of carbon nanotube contacts on transport properties and performance of thin film transistor.

Major achievement: We have fabricated highly sensitive carbon nanotube thin film transistors and studied the microscopy of contacts and doping effects. The study provided a valuable information on the mechanism of single molecule detection. (Nano Res. 2012, Journal of Chemical Physics C, 2013).

Host: Prof. Esko Kauppinen

Sept. 2007- July 2009

Visiting Professor at Ohio University, Ohio, USA.
Research themes : Molecular scale organic superconductivity and dielectric properties of single wall carbon nanotubes.

Major achievement:

1. *Nanoscale confined superconducting condensate:*
We have fabricated the world smallest superconductor which is just 4 molecular pairs. This discovery opens up a great opportunity to test theories in a clean system thereby unraveling the mechanism and the nature of superconductivity right at the nanoscale.

2. *Assaying metallic and semiconducting nanotubes at room temperature:*
We have built a facile and fast technique to assay metallic and semiconducting nanotubes based on their dielectric response. We improve techniques further to include gating effects for application in carbon nanotube thin film transistors

Senior research Scientist
Jozef Stefan Institute, Department of Condensed Matter Physics, Slovenia

Research Interest
Scaling and proximity effects in single layer mesoscopic superconductors, Organic charge transfer salts, gating actions in gas and biomolecule sensors, atom and molecule manipulations, flexible electronics, interconnects technology, single molecule functionalization.

December 2015-May 2016.

Professor and Director of Center for Nanotechnology, Zewail City of Science and Technology, Giza, Egypt.

Research Interest:
Microfabrication of flexible nanotube thin film transistor, Nanoscale characterization of catalytic activity, Spatial resolved photovoltaic properties, Biosensors. Near field scanning probe microscopy for mapping nanoscale optical and electrical properties.

Press release:

High resolution imaging of carbon nanotubes at room temperature, AIST (1999)

Selective etching of single wall carbon nanotubes, AIST (2005)

The world smallest superconductor is just 3.5 nm, AIST (2010)

Participation in funded Japanese and European projects:

August 2010-2013:

I have been involved in center of excellence for low carbon technology (CO NOT project) to develop highly efficient energy storage devices. The total funds amounts to 10 million Euros.

April 2004-March 2008

I have been involved in CREST-JST project. A national initiative from the Japanese government to promote basic research on nanomaterials. (Total funds more than 35 million dollars).

April 2002-March 2006

I have been involved in NEDO nanocarbon project. A national initiative from Japanese government to promote basic and applied research of carbon nanotubes and related materials. The project involves about 8 companies (Fujitsu, Mitsubishi, NEC,...etc) and 10 universities around the country. The project leader was Prof. sumio Iijima who has discovered the nanotubes in 1991. (total funding more than 35 million dollars).

April 2003-March 2005

Slovenia Japan bilateral project. In collaboration with Dr. Venturini & Prof. Dr. Dragan Mihailovic. To investigate the atomic scale properties of dichalcogenide and carbon nanotubes (50, 000 US\$)

- Hassanien (invited talk)
“Heteroepitaxial Patterning of (BETS)₂GaCl₄ on Ag(111): from Kagome Lattice to Monolayer Superconductor”
National Institute of Material Science (NIMS), Tsukuba, Japan (21/1/2015).
- A. Hassanien (invited talk)
International Workshop Advances in nanostructured superconductors: materials, properties and theory “La Cristalera”, Miraflores de la Sierra, Madrid, 4 - 7 May (2014).
- Hassanien (invited talk)
Heteroepitaxial growth of organic superconductor on Ag(111)
Aalto University, Espoo, Finland(13/6/2014).
- Hassanien (oral Contribution)
International conference on “Physics and Applications of Superconducting Hybrid Nano-Engineered Devices” (SHyNeD 2014) Santa Maria di Castellabate, Italy, 31 August to 4 September 2014.
- Hassanien (invited talk)
“Gating action in carbon nanotube thin film transistor”
Kent State University, Kent, USA (8/1/2014)
- Hassanien (invited talk)
“Proximity in nanoscale superconductors”
Aalto University, Espoo, Finland (12/12/2013).
- Hassanien (invited talk)
“Gating action in carbon nanotube thin film transistor”
Espoo, Aalto University 13/12/2013.
- Hassanien (Oral Contribution)
“Spatially Resolved Transport Properties of Pristine and Doped Single-Walled Carbon Nanotube Networks”
Espoo and Tallinn, NT13, 29/6/2013 (Finland and Estonia)
- Hassanien (invited talk)
“Scaling Effects in Mesoscopic Conductors and superconductors” Florida, ICSS, 17/12/2012, (USA)
- Hassanien (two invited talks)
“Superconductivity at nanoscale” & “spatially resolved electronic properties on mesoscopic materials”
Marsa Alam, Eg-MRS, 27/11/2012, (Egypt)
- Hassanien (invited talk)
“Optimizing the microstructure of Carbon Nanotube thin film transistor for sensing applications”
Shenzhen, Nanomedicine, 2/11/2012 (China)
- Hassanien (invited talk)

- P. Umek, A. Hassanien, M. Tokumoto, D. Mihailovic. Carbon, 38: (11-12) 1723-1727 (2000).
6. "Scanning tunneling microscopy and spectroscopy study of carbon nanotubes"
A. Hassanien and M. Tokumoto; Molecular Materials, 13: (1-4) 51-58 (2000).
 7. "Doping mechanism in single-wall carbon nanotubes studied by optical absorption" R. Jacquemin, S. Kazaoui, D. Yu, A. Hassanien, N. Minami, H. Kataura, Y Achiba. Synthetic metals 115: (1-3) 283-287 (2000).
 8. "Atomically resolved scanning tunneling microscopy and spectroscopy of carbon nanotubes" A. Hassanien; Proceeding of nanotubes& nanostructures, Sardinia Italy (2000).
 9. "Fermi electron wave packet interference images on carbon nanotubes at room temperature" A. Hassanien, M. Tokumoto, P. Umek, D. Mihailovic and A. Mrzel Applied Physics. Letters. 78, 808 (2001).
 10. "STM of short Multiwall Carbon nanotubes" A. Hassanien, M. Tokumoto, X. Zhao and Y. Ando. Synthetic metals 121: (1-3) 1197-1198 (2001).
 11. "Interference of Electron Waves on Carbon Nanotubes at Room Temperature" A. Hassanien, P. Umek, D. Vrbanic, M. Mozetic, P. Venturini, M. Tokumoto, D. Mihailovic, and S. Pejovnik, MRS Proceedings Volume 706 (2001)
 12. "Scanning tunneling microscopy of aligned coaxial nanowires of polyaniline passivated carbon Nanotube" A. Hassanien, M. Gao, M. Tokumoto and L. Dai; Chem. Phys. Lett 342 (5-6): 479-484 (2001).
 13. "Charge density modulation on single wall carbon nanotube at room temperature" A. Hassanien, P. Umek, A. Mrzel, D Vrbanic, Mozetic, P. Venturini, M. Tokumoto, D. Mihailovic and S. Pejovnik. Electronic properties of molecular nanostructures, Kirchberg, Austria. AIP Conf. Proc. 591(1) 359 (2001).
 14. "Scanning tunneling microscopy of aligned coaxial nanowires of polyaniline passivated carbon nanotube"
A. Hassanien, M. Gao, M. Tokumoto and L. Dai. Electronic Properties of Molecular Nanostructures: XV International Winterschool/Euroconference Kirchberg, Tirol (Austria) AIP Conf. Proc. 591(1) 501 (2001).
 15. "Imaging the interlayer interactions of multiwall carbon nanotubes using scanning tunneling microscopy and spectroscopy"

- Shandakov, Giulio Lolli, Daniel E. Resasco, Mansoo Choi, David Tománek, and Esko Kauppinen. *Nature Nanotechnology* 2(3), 156-161 (2007).
27. "Effective, fast, and low temperature encapsulation of fullerene derivatives in single wall carbon nanotubes" A. Mrzel, A. Hassanién, Z. Liu, K. Suenaga, Y. Miyata, K. Yanagi, H. Kataura. *Surface Science* 601 5116-5120 (2007).
28. "Carbon nanotube metrology" A. Jorjo, E. Kaupinnen, A. Hassanién book chapter published in *Carbon Nanotubes: Advanced Topics in the Synthesis, Structure, Properties and Applications*. Edited by Mildred Dresselhaus, Gene Dresselhaus and Ado Jorio (2007).
29. "The Local-scale Study of a NanoBud Structure" Ying Tian, Delphine Chassaing, Albert G. Nasibulin, Paola Ayala, Hua Jiang, Anton S. Anisimov, Abdou Hassanién, Esko I. Kauppinen, *Physica Status Solidi* 245, 2047 (2008).
30. "A Scanning Probe Microscopy Based Assay for Single-Walled Carbon Nanotube Metallicity" W. Lu, Y. Xiong, A. Hassanién, W. Zhao, M. Zheng and L. Chen, *Nano Letters*, 9, 1668-1672 (2009).
31. "Superconductivity in Just Four Pairs of (BETS)₂-GaCl₄ Molecules" K. Clark, A. Hassanién, S. Khan, K.-F. Braun, H. Tanaka, and S.-W. Hla, *Nature Nanotechnology*, 5, 261 - 265 (2010).
32. "Preparation of Atomically Flat Gold Substrates for AFM Measurements" U. Maver, O. Planinsek, J. Jamnik, A. Hassanién and M. Gabersček, *Acta Chim. Slov.*, 59, 212-219 (2012).
33. "Contactless Characterization of Electronic Properties of Nanomaterials Using Dielectric Force Microscopy" W. Lu, J. Zhang, Y. S. Li, Qi Chen, X. Wang, A. Hassanién, and L. Chen, *The journal of physical chemistry. C, Nanomaterials and interfaces*, 116, no. 12, str. 7158-7163 (2012)
34. "Effect of Carbon Nanotube Network Morphology on Thin Film Transistor Performance" M. Y. Timmermans, D. Estrada, A. G. Nasibulin, J. D. Wood, A. Behnam, D. M. Sun, Yutaka Ohno, J. W. Lyding, A. Hassanién, E. Pop and E. I. Kauppinen, *Nano Res.*, 5(5): 307-319 (2012).
35. "A novel facile synthesis and characterization of molybdenum nanowires" Andrej Kovič, Andrej Žnidaršič, Adolf Jesih, Aleš Mrzel, Miran Gabersček, Abdou Hassanién, *Nanoscale Research Letters*, 7, 567 (2012).
36. "Spatially Resolved Transport Properties of Pristine and Doped Single-Walled Carbon Nanotube Networks" Andrej Znidarsic, Antti Kaskela, Patrik Laiho, Miran Gaberscek, Yutaka Ohno, Albert G. Nasibulin, Esko I. Kauppinen and Abdou Hassanién, *J. Phys. Chem. C*, 117 (25), pp 13324-13330 (2013).
37. Hydrogen-Driven Cage Unzipping of C₆₀ into Nano-Graphenes" Alexandr V. Talyzin Serhiy Luzan, Ilya V. Anoshkin, Albert G. Nasibulin, Esko I. Kauppinen, Andrzej Dzwilewski, Ahmed Krieta, Janko Jamnik, Abdou Hassanién, Anna Lundstedt and

6. Ahmed Samy Kreta PhD student at Ljubljana University (AFM techniques on flexible and conducting nanowires, microscopic properties of Li ion batteries, 2017).
7. Tjasa Parkelj, Master student at University of Ljubljana (Low temperature UHV STM spectroscopic techniques on few layers of elemental superconductors on metal surfaces, 2015).
8. Moheb Abdelaziz, PhD students at Kiel University (Plasmonic metamaterials for solar cell applications, 2019).
9. Mehmet Yetik PhD student at Kiel University (Near-Field mapping of light harvesting metamaterials, 2021).

Teaching Experience:

Post graduate teaching:

1. Solid state physics: PhD and Master Students, Ohio University 2007-2009.
2. Advanced lectures on Real space exploration of electronic and structural properties of Nanomaterials for PhD students at Tokyo Institute of technology, Tokyo, Japan (2010-2011).
3. Advanced course on nanoscale microscopy and spectroscopy for master and PhD students at Aalto University, Espoo, Finland (2011-2012).
4. Advanced course on nanoscale microscopy and spectroscopy for master and PhD students at Aalto University, Espoo, Finland (2016-2017).

Undergraduate Teaching:

1. Ain Shams University (Cairo, Egypt):
Solid state physics 1997-1999
2. Ain Shams University (Cairo, Egypt)
Solid state electronics: 1987-1991
3. Ohio University (Ohio, USA):
Guest lecturer, general physics, Solid state physics 2007-2009.
4. Sultan Qaboos University (Oman), General Physics: fall semester of 2015-2016.

Institut "Jožef Stefan", Ljubljana, Slovenija



Jamova cesta 39, 1001 Ljubljana, p. p. 3000 / Tel.: (01) 477 3900 / Faks: (01) 251 93 85 / www.ijs.si


datum: 30. 11. 2020

POTRDILO O ZAPOSLOTITVI

Potrjujemo, da je dr. ABDELRAHIM IBRAHIM HASSANIEN, zaposlen na Institutu »Jožef Stefan«, Jamova cesta 39, 1000 Ljubljana za določen čas, od 9. 6. 2014 do 31. 12. 2021.

Sekretarka IJS

Tamara Kotnik, univ. dipl. prav.

 Institut
"Jožef Stefan"
Ljubljana, Slovenija

1001

18412

Podgorica, 20 god.

23-11-2020

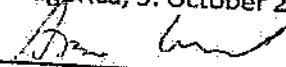
REQUEST

TO THE FACULTY OF NATURAL SCIENCES AND MATHEMATICS

I, as a PhD student at the Faculty of Natural Sciences and Mathematics, have chosen prof. Jovan Mirković as my PhD advisor, and prof. Abdelrahim Hassanien from the Jožef Stefan Institute as my co-advisor. Therefore, I request that the Faculty propose these candidates to the Center for doctoral research.

Arso Ivanović

In Podgorica, 9. October 2020



With consent from:

prof. Jovan Mirković





prof. Abdelrahim Hassanien



Број: 01-158
Датум, 21.01.2008 г.

Ref: _____
Date, _____

Na osnovu člana 75 stav 2 Zakona o visokom obrazovanju (Sl.list RCG br. 60/03.) i člana 18 Statuta Univerziteta Crne Gore, Senat Univerziteta Crne Gore, na sjednici održanoj 21.02.2008. godine, donio je

ODLUKU O IZBORU U ZVANJE

Dr JOVAN MIRKOVIĆ bira se u akademsko zvanje redovni profesor Univerziteta Crne Gore za predmete: Osnovi fizičkog eksperimenta I i II, Istorija i filozofija fizike na Prirodno-matematičkom fakultetu i Fizika na nematičnim fakultetima.


REKTOR,
Prof.dr Ljubiša Stanković



Europass Curriculum Vitae



Personal Information

Surname(s) / First name(s)

Mirković Jovan

Address(es)

University Office: Faculty of Science and Mathematics, University of Montenegro, George Washington Str. bb, 81 000, Podgorica, Montenegro

Montenegrin Science Promotion Foundation PRONA Office: Studentska, lamela 10/29, 81 000 Podgorica, Montenegro.

Telephone(s)

+382 20 220 615 (office);

Mobile

+382 67 491 502;

+382 69 491 502

Fax(es)

+382 20 244 608 (office)

E-mail

mirkovic@ucg.ac.me (office)

Nationality

Montenegrin

Date of birth

July 31, 1961

Gender

Male

Desired employment /
Occupational field

Physics – research and education

Work experience

Dates

2008 – present

Occupation or position held

Full professor

Main activities and responsibilities

Education and research in physics, materials science and nanotechnologies
Teaching courses:

- Experimental Physics (Faculty of Sciences and Mathematics, Department of Physics)
- Biophysics (Department of Biology)
- History and Philosophy of Physics (Department of Physics)
- Modern Physics - Solid State Physics (Department of Physics) – Graduate School
- Automatic Data Acquisition (Department of Physics) – Graduate School
- General Physics (Faculty of Mechanical Engineering)
- Biophysics (Faculty of Medicine)
- Biophysics (School of Dental Medicine)
- Dental materials – physics contest (School of Dental Medicine)
- Physics and Philosophy (Faculty of Economics)
- The Japanese Economy (Faculty of Economics)
- Low temperature physics and superconductivity

Name and address of employer Faculty of Science and Mathematics University of Montenegro, George Washington Str. bb, 81 000, Podgorica, Montenegro
Visiting professor, Graduate School of Pure & Applied Sciences, University of Tsukuba, Japan

Type of business or sector Public sector - High Education

Dates 2005 - 2010

Occupation or position held Associate professor

Main activities and responsibilities Teaching courses:

- Experimental Physics (Faculty of Natural Sciences and Mathematics – FNSM, Department of Physics)
- Chapters of Modern Physics - Solid State Physics (FNSM, Department of Physics) – MSc level
- Automatic Data Acquisition (FNSM, Department of Physics) – MSc level
- Physics and Philosophy (Faculty of Economics)
- The Japanese Economy (Faculty of Economics)

2003 COE 21st Century Researcher, University of Tsukuba, JAPAN;
2003-2005 Researcher, 21st Century Center of Excellence Program, University of Tsukuba
2006 Visiting Professor, University of Tsukuba, Japan

Research in Superconductivity and Nano-engineering; SAT in Montenegro; Science popularization.

Projects:

- „Theoretical and experimental investigation of thermodynamic and transport properties of superconductors: Ministry of Education and Science”, Montenegro, 2005-2007.
- „Introduction to Experimental Physics”, Course development program (CDP+), WUS-Austria, 2004
- Multidisciplinary Centre for Experimental Study, WUS-Austria, 2003.

Name and address of employer Faculty of Science and Mathematics, University of Montenegro, George Washington Str. bb, 20 000, Podgorica, Montenegro

Type of business or sector Public sector - High Education

Dates 1997-2002

Occupation or position held Assistant professor

Main activities and responsibilities Teaching courses:

- Introduction to experimental physics (Faculty of Science and Mathematics, Department of Physics)
- Physics (Faculty of Electrical Engineering)
- Physics (Faculty of Civil Engineering)

Research in vortex dynamics of high-temperature superconductors.

1997-2000 CREST (JST) Researcher, Institute of Materials Science, University of Tsukuba

Name and address of employer Faculty of Natural Sciences and Mathematics, University of Montenegro, George Washington Str bb 81 000, Podgorica, Montenegro

Type of business or sector Public sector - High Education

Dates 1996

Occupation or position held 1996 Post-doctoral STA fellow, National Research Institute for Metals, Tsukuba, Japan

Main activities and responsibilities Research -- experimental study of vortex dynamics in high-temperature superconductors.

Name and address of employer Science and Technology Agency of Japan, National research Institute for Metals, Tsukuba,
Type of business or sector Public sector – Scientific Research

Dates 1991 - 1994

Occupation or position held Researcher

Main activities and responsibilities Research – electromagnetic properties of ceramic and melted high-temperature superconductors

Name and address of employer Moscow State University "M. V. Lomonosov", Faculty of Physics, Russia

Type of business or sector All Russian Electric Engineering Institute, Moscow, Russia

Public sector – Education and Research

Dates 1987-1990

Occupation or position held Research fellow

Main activities and responsibilities Teaching assistant

Teaching courses / experimental and theoretical exercises:

- Physics - Faculty of Electrical Engineering, Faculty of Civil Engineering, Faculty of Metallurgy and Technology, Faculty of mathematics and Natural Sciences – Biology Department

Name and address of employer Institute of Mathematics and Physics, University of Veljko Vlahovic, Montenegro,
Cetinjski put bb, 81 000, Titograd, Montenegro

Type of business or sector Public sector – High Education

Education and training

Dates 1996

Title of qualification awarded PhD in Physics.

Principal subjects/occupational skills covered Condensed Matter Physics – High Temperature Superconductors

Name and type of organisation providing education and training Moscow State University "M. V. Lomonosov", Faculty of Physics, Russia:

Level in national or international classification PhD

Title of qualification awarded BSc in Physics (4 years studies)

Principal subjects/occupational skills covered Physics

Name and type of organisation providing education and training Institute of Mathematics and Physics, University of Veljko Vlahovic, Titograd, Montenegro, Yugoslavia.

Level in national or international classification BSc

Personal skills and competences Scientific disciplines:

- Physics
- Solid State Physics.

Specific research subjects:

- Experimental solid state physics
- Superconductivity
- Nanotechnology

Experience:

- Project Management
- Foresight analysis
- Science communication

Mother tongue(s) **Montenegrin**

Other language(s)

Self-assessment

European level (*)

English

Russian

Understanding				Speaking				Writing	
Listening		Reading		Spoken interaction		Spoken production			
C2	Proficient user	C2	Proficient user	C2	Proficient user	C2	Proficient user	C2	Proficient user
C2	Independent user	C2	Independent user	C1	Independent user	C1	Independent user	B2	Independent user

(*) Common European Framework of Reference for Languages

Social skills and competences

Chairperson at scientific conferences; Montenegro team leader at the 42nd and 43rd International Physics Olympiad; Mentorships (BSc, MSc, PhD).

Organizational skills and competences

President of Montenegrin Science Promotion Foundation PRONA; president of the National Committee of IAESTE; member of National UNESCO Commission; member of Board of Foundation Young Inventor Program for Montenegro; member of National Council for Cooperation of NGOs and Government; Member of Parliament of Montenegro 1985-89; President, Physics Program Committee for Public Elementary and High Schools; Long track record of science communication and work with young talents. Montenegro team leader, 42nd and 43rd International Physics Olympiad; Chairman of organizing committee of scientific conferences on nanoscience in Montenegro in 2008, 2009, 2011 and 2016; President of organizing committee of Summer Science School for Young Talents 2008-2012; Program Director of the Science Festival – Researchers' Night in Montenegro 2009 – 2015; Founder: The Japanese Corner; Astronomy Club; Science News Portal.

Computer skills and competences

Computer skills:

- Operating systems: Windows
- Office Automation: MS Office (Word, Excel ...)
- Presentation skills: MS PowerPoint

Driving licence B type (car driving) since September 8, 1988

Additional information 2014-2018 The first Ambassador of Montenegro to Japan

Annexes Annex 1: Jovan Mirkovic: Bibliography
Annex 2: Jovan Mirkovic: List of projects

Books and Monographs

- [1] Jovan Mirković: „With science to the future“, chapter in the book: „Montenegro in XXI Century - in the Era of Competitiveness: Science and Technology“, Editor Jovan Mirkovic, Montenegrin Academy of Sciences and Arts, Special editions: Monographies and Studies, Volume 73, Tom 11, ISBN 978-86-7215-249-4, COBISS.CG-ID 16240400, Podgorica, 2010, p. 17-24.
- [2] Jovan Mirković: „Knowledge based decision-making“, chapter in the book: „Montenegro in XXI Century - in the Era of Competitiveness: Science and Technology“, Editor Jovan Mirkovic, Montenegrin Academy of Sciences and Arts, Special editions: Monographies and Studies, Volume 73, Tom 11, ISBN 978-86-7215-249-4, COBISS.CG-ID 16240400, Podgorica, 2010, p. 311-330.
- [3] Jovan Mirković, Sandra Tinaj: „Key Directions and Interdisciplinarity“, chapter in the book: „Montenegro in XXI Century - in the Era of Competitiveness: Science and Technology“, Editor Jovan Mirkovic, Montenegrin Academy of Sciences and Arts, Special editions: Monographies and Studies, Volume 73, Tom 11, pp 141-166, ISBN 978-86-7215-249-4, COBISS.CG-ID 16240400, Podgorica, 2010
- [4] J. Mirković and K. Kadowaki / *Dynamical Resistivity Behavior above and below Vortex Lattice Melting Transition in Single Crystalline $Bi_2Sr_2CaCu_2O_{8+\delta}$* // *Advances in Superconductivity XI*, p. 557, Springer, 1999 (ISBN-10: 4431702563).
- [5] Radovan Ognjanovic, Jovan Mirkovic, „Selected Topics of Physics“, The Institute for textbooks and educational teaching resources, Podgorica, Montenegro, 2012; ISBN 978-86-303-1721-7.

PhD Dissertation: „Experimental study of static and low-frequency electromagnetic properties of ceramic and melted high-temperature superconductors.“, Moscow State University “M.V. Lomonosov”, Russia, 1996.

International scientific journals

- [1] J Mirkovic, S Savelev, I Kakeya, T. Kashiwagi, B. Markovic, K Kadowaki / *Tilted vortex lattices in irradiated $Bi_2Sr_2CaCu_2O_{8+\delta}$ single crystals* // *Journal of Physics Conference Series* 667(1):012007 (2016).
- [2] T. Kashiwagi, T. Yamamoto, H. Minami, M. Tsujimoto, R. Yoshizaki, K. Delfenazari, T. Kitamura, G. Watanabe, K. Nakade, T. Yasui, K. Asanuma, Y. Saiwai, Y. Shibano, T. Enomoto, H. Kubo, K. Sakamoto, T. Katsuragawa, B. Marković, J. Mirković, R. A. Klemm, and K. Kadowaki / *Efficient Fabrication of Intrinsic Josephson-Junction Terahertz Oscillators with Greatly Reduced Self-Heating Effects* // *Physical Review Applied* 4(5), Nov. 2015; DOI: 10.1103/Phys. Rev. Applied. 4.054018
- [3] T. Kashiwagi, K. Nakade B. Markovic Y. Saiwai H. Minami, T. Kitamura K. Ishida S. Sekimoto K. Asanuma T. Yasui Y. Shibano M. Tsujimoto T. Yamamoto, J. Mirkovic, K. Kadowaki // *Reflection type of terahertz imaging system using a high-Tc superconducting oscillator* // *Applied Physics Letters* 104(2):022601-5 - January 2014; DOI: 10.1063/1.4861602
- [4] T. Kashiwagi, K. Nakade, Y. Saiwai, H. Minami, T. Kitamura, C. Watanabe, K. Ishida, S. Sekimoto, K. Asanuma, T. Yasui, Y. Shibano, M. Tsujimoto, T. Yamamoto, B. Markovic, J. Mirkovic, R. A. Klemm, and K. Kadowaki / *Computed tomography image using sub-terahertz waves generated from a high-Tc superconducting intrinsic Josephson junction oscillator* // *Applied Physics Letters* 104, 082603 (2014); doi: 10.1063/1.4866898
- [5] Jovan Mirkovic, Alexandre Buzdin, Takanari Kashiwagi, Takashi Yamamoto, Kazuo Kadowaki / *Crossover from Crossing to Tilted Vortex Phase in $Bi_2Sr_2CaCu_2O_{8+\delta}$ Single Crystals near ab-plane* // *Physica C: Superconductivity and its applications*, Physica C 484 (2013) 77–80.
- [6] J. Mirkovic, T. Kashiwagi, T. Saito, T. Yamamoto, K. Kadowaki / *Geometry dependent resistivity behavior in mesoscopic $Bi_2Sr_2CaCu_2O_{8+\delta}$ single crystals* // *Physica C* 471 (2011) 787–789.
- [7] Jovan Mirkovic, Takashi Saito, Takanari Kashiwagi, Itsuhiro Kakeya, Yulmaru Kubo, Takashi Yamamoto, Ahmet Oral, Kazuo Kadowaki / *Vortex States in Magnetic Fields near ab-plane in $Bi_2Sr_2CaCu_2O_{8+\delta}$ Crystal* // *Physica C* 470 (2010) S790–S792
- [8] T. Kashiwagi, K. Nakade, B. Markovic, Y. Saiwai, H. Minami, T. Kitamura, G. Watanabe, K. Ishida, S. Sekimoto, K. Asanuma, T. Yasui, Y. Shibano, M. Tsujimoto, T. Yamamoto, J. Mirkovic, and K. Kadowaki / *Reflection type of terahertz imaging system using a high-Tc superconducting oscillator* // *Applied Physics Letters* 104, 022601 (2014)
- [9] T. Kashiwagi, K. Nakade, Y. Saiwai, H. Minami, T. Kitamura, C. Watanabe, K. Ishida, S. Sekimoto, K. Asanuma, T. Yasu, Y. Shibano, M. Tsujimoto, B. Markovic, J. Mirkovic, R. A. Klemm, and K. Kadowaki / *Computed tomography image using sub-terahertz waves generated from a high-Tc superconducting intrinsic Josephson junction oscillator* // *Applied Physics Letters* 104, 082603 (2014)
- [10] Jovan Mirkovic, Takashi Saito, Takanari Kashiwagi, Takashi Yamamoto, Kazuo Kadowaki / *Crossing Vortex Lattice and Lock-In Vortex State in Mesoscopic $Bi_2Sr_2CaCu_2O_{8+\delta}$ Crystal* // *Physica C* 470 (2010) S793–S794.
- [11] J. Mirkovic, Y. Kubo, T. Saitou, I. Kakeya, T. Yamamoto, A. Oral, K. Kadowaki / *Vortex States in Mesoscopic $Bi_2Sr_2CaCu_2O_{8+\delta}$ Crystal in High Magnetic Fields* // *Physica C* 469, 1119 (2009).
- [12] Jovan Mirkovic, Sergey Savelev, Hirokazu Sato, Franco Nori, Kazuo Kadowaki / *Melting of Vortex Solid in Irradiated $Bi_2Sr_2CaCu_2O_{8+\delta}$ Single Crystals in Tilted Magnetic Fields* // *New Journal of Physics* (ISSN: 1367-2630) Vol 8, 226 (1-14) (2006).
- [13] J. Mirkovic, K. Murata, A. Nakano, T. Yamamoto, I. Kakeya, and K. Kadowaki / *The Peak Effect as a Precursor to Lock-In State in $Bi_2Sr_2CaCu_2O_{8+\delta}$ Single Crystal* // *AIP Conf. Proc.* (ISSN:0094-243X), Volume 850, p. 799 (2006).
- [14] J. Mirkovic, A. Satou, A. Nakano, T. Yamamoto, I. Kakeya, and K. Kadowaki / *Phase Transition from Crossing Lattice to Tilted Lattice Near ab-plane in $Bi_2Sr_2CaCu_2O_{8+\delta}$ Single Crystal* // *AIP Conf. Proc.* (ISSN:0094-243X), Volume 850, 2006, p. 801 (2006).
- [15] Jovan Mirković, Shintaro Hayama, Atsushi Nakano, Krsto Ivanović, Jovan Sebrajčić, and Kazuo Kadowaki / *Vortex Phases in $Bi_2Sr_2CaCu_2O_{8+\delta}$ Single Crystals in Tilted Magnetic Fields* // *Materiale Science Forum* (ISSN:0255-5476), Vol. 67, p. 453 (2004).
- [16] S. Hayama, T. Yamamoto, I. Kakeya, J. Mirković, K. Kadowaki / *Vortex Crossing Lattice Phase Transitions in Single Crystalline $Bi_2Sr_2CaCu_2O_{8+\delta}$* // *Physica C* (ISSN:0921-4534), Vol. 412-414, p. 478-481, 2004.
- [17] Sergey Savelev, Franco Nori, Jovan Mirković, Kazuo Kadowaki / *Vortex lattice melting transition under the influence of the c-axis current* // *Physica C: Superconductivity* (ISSN:0921-4534), 388-389, 665 (2003).
- [18] Sergey Savelev, Jovan Mirković, Franco Nori / *Fluctuations in the Josephson-pancake combined vortex lattice* // *Physica C: Superconductivity* (ISSN:0921-4534), Vol. 388-389, 653 (2003).
- [19] Jovan Mirković, Sergey Savelev, Kazuo Kadowaki / *Suppression of Surface Barriers in Single Crystals of $Bi_2Sr_2CaCu_2O_{8+\delta}$ by In-plane Magnetic Fields* // *Physica C: Superconductivity* (ISSN:0921-4534), Vol. 388-389, 759 (2003).

- [20] Kazuo Kadowaki, Shintaro Hayama, Kazuhiro Kimura, **Jovan Mirković**, Sergey Savel'ev / Phase diagram in highly anisotropic layered superconductors: crossing lattice melting transition // *Physica C: Superconductivity* (ISSN:0921-4534), Vol. 388-389, 721 (2003).
- [21] **Jovan Mirković**, Sergey Savel'ev, Shin Hayama, Emiko Sugahara, Kazuo Kadowaki / Vortex Phases in Single Crystals of $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+x}$ Near ab-plane Studied by c-axis and in-plane Resistivity Measurements // *Physica C: Superconductivity* (ISSN: 0921-4534), Vol. 388-389, 757 (2003).
- [22] **J. Mirković**, S.E. Savel'ev, E. Sugahara, and K. Kadowaki / Anisotropy of Vortex-Liquid and Vortex-Solid Phases in Single Crystals of $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+x}$: Violation of the Scaling Law // *Phys. Rev. B* (ISSN:1098-0121), 66, 1325, 2002; *Virtual Journal of Applications of Superconductivity*, Issue October 15, 2002 (<http://www.vjsuper.org>).
- [23] **J. Mirković**, S.E. Savel'ev, E. Sugahara and K. Kadowaki / Melting Transition in Single Crystals of $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+x}$ Studied by the c-axis and in-plane Resistivity Measurements in Parallel Magnetic Fields // *Physica C: Superconductivity and its Applications* (ISSN:0921-4534), Vol. 378-381, 429 (2002).
- [24] **J. Mirković**, S.E. Savel'ev, E. Sugahara and K. Kadowaki / Dimensionality of Vortex Solid and Liquid Phases in Single Crystals of $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+x}$ Studied by the Resistivity Measurements // *Physica C: Superconductivity and its Applications* (ISSN:0921-4534), Vol. 378-381, 492 (2002).
- [25] S.E. Savel'ev, **J. Mirković**, and K. Kadowaki / Influence of Force-Free Current on Vortex Lattice Melting Transition // *Physica C: Superconductivity and its Applications* (ISSN: 0921-4534), Vol. 378-381, P1, 496 (2002).
- [26] Sergey Savel'ev, **Jovan Mirković**, and Kazuo Kadowaki / Elasticity of Combined Pancake and Josephson Vortex Lattice // *Physica C: Superconductivity and its Applications* (ISSN:0921-4534), Vol. 378-381, P1, 581 (2002).
- [27] **J. Mirković**, S.E. Savel'ev, E. Sugahara and K. Kadowaki / Step-wise Behavior of Vortex-Lattice Melting Transition in Tilted Magnetic Fields in Single Crystals of $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+x}$ // *Phys. Rev. Letters* (ISSN:0031-9007), Vol. 86, 886 (2001).
- [28] **Jovan Mirković**, Emiko Sugahara, Sergey Savel'ev, Kazuo Kadowaki / The non-linear resistivity behavior in the parallel magnetic fields: Indication of the vortex smectic phase in $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+x}$ // *Physica C* (ISSN:0921-4534), Vol. 364-365, 515 (2001).
- [29] **Jovan Mirković**, Sergey Savel'ev, E. Sugahara, Kazuo Kadowaki / Scaling of Vortex Lattice Melting Transition in Single Crystals of $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+x}$ // *Physica C* (ISSN:0921-4534), 357-360, 450 (2001).
- [30] S.E. Savel'ev, **J. Mirković**, and K. Kadowaki / The London theory of crossing-vortex lattices in high anisotropic layered superconductors // *Phys. Rev. B* (ISSN:1098-0121), Vol. 64, 94521 (2001).
- [31] Sergey Savel'ev, **Jovan Mirković**, and Kazuo Kadowaki / The Novel Electrodynamics of Combined Pancake and Josephson Vortex Lattice // *Physica C* (ISSN:0921-4534), Vol. 357-360, p. 597 (2001).
- [32] Sergey Savel'ev, **Jovan Mirković**, and Kazuo Kadowaki / Free Energy of Vortex System Beyond the Elastic Approximation // *Physica C* (ISSN:0921-4534), Vol. 357-360, p. 601 (2001).
- [33] **Jovan Mirković**, Sergey Savel'ev, Emiko Sugahara and Kazuo Kadowaki / Novel Angular Dependence of Vortex Melting Transition in Single Crystal $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+x}$ // *Physica C* (ISSN:0921-4534), Vol. 341-348, p. 1181 (2000).
- [34] **Jovan Mirković** and Kazuo Kadowaki / Vortex Dynamics in Low Magnetic Fields in Single Crystal $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+x}$ // *Physica C* (ISSN: 0921-4534), v. 341-348 pp. 1273 (2000).
- [35] Kazuo Kadowaki, **Jovan Mirković**, Sergey Savel'ev and Emiko Sugahara / Anomalous Angular Dependence of Vortex Melting Transition in Single Crystal $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+x}$ // *Physica C* (ISSN:0921-4534), v. 341-348, pp. 1301 (2000).
- [36] **Jovan Mirković**, Emiko Sugahara and Kazuo Kadowaki / Vortex Lattice Melting Transition in Oblique Magnetic Fields in Single Crystals $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+x}$ // *Physica B* (ISSN:0921-4526), 284-288, p. 717, 2000.
- [37] **Jovan Mirković** and Kazuo Kadowaki / Nonlinear resistivity in vortex liquid and surface barriers in single crystals $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+x}$ // *Physica B* (ISSN: 0921-4526), 284, p.759, 2000.
- [38] **J. Mirković**, K. Kimura and K. Kadowaki / Moving Vortex States Studied by Current Flow in Single Crystal $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+x}$ // *Phys. Rev. Lett.* (ISSN: 0031-9007), Vol. 82, 2374, (1999).
- [39] Yu.P. Gaydukov, Yu.A. Koksharov, Yu.V. Kochetkov, **J. Mirković**, V.N. Nikiforov / $\text{Ce}_3\text{Pd}_2\text{Ge}(\text{Si})_8$: A new Kondo system? // *JETP Letters* (ISSN: 0021-3640), Vol. 61 No. 5, p. 385 - 389 (1996).
- [40] A.V. Gribanov, Yu.D. Seropegin, V.N. Nikiforov, A.A. Velikhovskii, **J. Mirković** / Isothermal cross-section of diagram CePtGe at 600°C // *Journal of Phase equilibria* (ISSN:1054-9714), Vol. 17, N 3, p. 196 (1996).
- [41] V.N. Nikiforov, Yu.A. Koksharov, **J. Mirković**, Yu.V. Kochetkov / New dense Kondo system $\text{Ce}_3\text{Pd}_2\text{Ge}(\text{Si})_8$ and related compounds $\text{Sm}(\text{Yb})_2\text{Pd}_2\text{Ge}(\text{Si})_8$ // *Journal of Magnetism and Magnetic Materials* (ISSN:0304-8953), v. 163, p. 184 - 192 (1996).
- [42] Zh.M. Barakatova, Y.V. Kochetkov, **J. Mirković**, V.N. Nikiforov, Yu.D. Seropegin / Interaction of elements in compounds $\text{Sm}(\text{Pd},\text{Pt})_2(\text{Si},\text{Ge})_2$ // *Russian Metallurgy (Metally)* (ISSN:0036-0295), V. 29, Issue 6, p. 137 - 144 (1996).
- [43] L.M. Fisher, A.V. Kalinov, **J. Mirković**, I.F. Voloshin, A. Bondarenko, M. Obolenskii, R.L. Snyder / Comparative Study of the Anisotropy of the Critical Current Density in Bulk Textured and Single Crystal YBCO // *Inst. Phys. Conf. Ser.* (0951-3249) No 148, p. 319, IOP Publishing Ltd, 1995.
- [44] L.M. Fisher, A.V. Kalinov, **J. Mirković**, I.F. Voloshin / The Abnormal Temperature Dependence of the Critical Current Density in Textured YBCO // *Inst. Phys. Conf. Ser.* (0951-3249) No 148, p. 263, IOP Publishing Ltd, 1995.
- [45] L.M. Fisher, A.V. Kalinov, **J. Mirković**, I.F. Voloshin, S.A. Zver'kov, A. Bondarenko, M. Obolenskii / Anisotropy of AC Magnetic Susceptibility and J_c in YBCO Bulk Textured Samples and Single crystals // *Applied Superconductivity* (ISSN:0984-1807), No. 10-12, p. 639, 1994.
- [46] L.M. Fisher, V.S. Gorbachev, A.V. Kalinov, **J. Mirković**, S.E. Savel'ev, I.F. Voloshin, V.A. Yampol'skii / Nonlocal Critical State Model for Hard Superconductors // *Applied Superconductivity* (ISSN:0984-1807), No. 10-12, p. 657, 1994.
- [47] L.M. Fisher, **J. Mirković**, I.F. Voloshin, N.M. Makarov, V.A. Yampol'skii, F. Perez Rodriguez and R.L. Snyder / Frequency limitations for the Applicability of the Critical State Model // *Applied Superconductivity* (ISSN:0984-1807), No. 10-12, p. 685, 1994.
- [48] D.A. Komarkov, A.A. Zhukov, **J. Mirković** / Current-Voltage Characteristics of $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+x}$ ceramic superconductor // *Solid State Communications* (ISSN:0038-1098), Vol. 89, No. 9, p. 751 (1994).
- [49] V.N. Nikiforov, M.V. Kovachikova, A.A. Velikhovskii, **J. Mirković**, O.M. Boitsenko, Yu.D. Seropegin / Electrical and Magnetic Properties of Intermetallic Compounds $\text{Yb}(\text{Pr},\text{Pd})(\text{Ge},\text{Si})$ // *Physics of the Solid State* (ISSN: 1063-7834) V. 36, N 2, p. 259 (1994).
- [50] V.N. Nikiforov, A.A. Velikhovskii, V. Kovachik, **J. Mirković**, M. Baran, H. Szymczak / Transport and Magnetic Properties of the New Cerium Ternary Ce-Pt-Ge compounds // *IEEE Transactions on Magnetics* (ISSN: 0018-9484), Vol. 30, No.2, p. 1223 (1994).
- [51] A.A. Velikhovskii, V.N. Nikiforov, **J. Mirković**, V. Kovachik, M. Baran, H. Szymczak A.V. Gribanov and Yu.D. Seropegin / Magnetic Properties of the New Ternary Cerium Intermetallic Compound CeRuSi_2 // *IEEE Transactions on Magnetics* (ISSN:0018-9484) Vol. 30, No. 2, p. 1208 (1994).
- [52] V.N. Nikiforov, V. Kovachik, A.A. Velikhovskii, **J. Mirković**, I.O. Grishchenko, B.A. Shaplev, O.I. Bodak and Yu.D. Seropegin / Transport and magnetic properties of the new ternary compound CeRuSi_2 at low temperatures // *Physica B* (ISSN:0921-4526), 186, p. 514 (1993).
- [53] A.A. Zhukov, D.A. Komarkov, **J. Mirković**, V.P. Shabalina and V.V. Palachev / Current-Voltage Characteristics of $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+x}$ ceramic superconductor // *Superconductivity: Physics, Chemistry, Techniques* (In Russian), 6(4), p. 587 (1993).
- [54] V.N. Nikiforov, V. Kovachik, A.A. Velikhovskii, **J. Mirković**, I.O. Grishchenko, B.I. Shaplev, O.I. Bodak, Yu.D. Seropegin / Electrical and Magnetic Properties of New Ternary Compound CeRuSi_2 // *Physics of the Solid State* (ISSN: 1063-7834) 35, N. 3, p. 332 (1993).

International scientific conferences

- [1] Jovan Mirkovic, Alexandre Buzdin, Itsuhiro Kakeya, Sergey Savel'ev, Takanari Kashiwagi and Kazuo Kadowaki / *Vortex States in Layered Bi₂Sr₂CaCu₂O_{8+d} Superconductors in Tilted Magnetic Fields* // School on quantum materials and workshop on vortex behavior in unconventional superconductors, 7-12 October, 2018, Braga, Portugal
- [2] **J. Mirković**, Crossing and Tilted Vortex Phases in Bi₂Sr₂CaCu₂O_{8+d} Single Crystals // A. A. Abrikosov Memorial Conference, June 24-26 2018, Chernogolovka, Russia
- [3] **J. Mirković**, T. Kashiwagi, H. Sato, B. Markovic, H. Takaoka, K. Kadowaki / *Crossover of Vortex Phases in Irradiated Bi₂Sr₂CaCu₂O_{8+d} Single Crystals*, 4th International Conference on Superconductivity and Magnetism, 27 -April - 2 May 2014, Antalya, Turkey
- [4] **Jovan Mirkovic**, Alexandre Buzdin, Takanari Kashiwagi, Takashi Yamamoto, Kazuo Kadowaki, *Crossover from Crossing to Tilted Vortex Phase in Bi₂Sr₂CaCu₂O_{8+d} Single Crystals near ab-plane*, program code VPP-4, International Symposium on Superconductivity 24-26 Oct, 2011, Tokyo, Japan.
- [5] **J. Mirković**, T. Kashiwagi, T. Saito, T. Yamamoto, K. Kadowaki / *Geometry dependent resistivity behavior in mesoscopic Bi₂Sr₂CaCu₂O_{8+d} single crystals*, program code: VPP-22., International Symposium on Superconductivity 1-3 Nov, 2010, Tsukuba, Japan.
- [6] **Jovan Mirkovic**, Takanari Kashiwagi, Takashi Saito, Takashi Yamamoto, Kazuo Kadowaki, *Anomalous resistivity behavior in mesoscopic single crystals Bi₂Sr₂CaCu₂O_{8+d} in high magnetic fields*, International Symposium on Superconductivity 2-4 Nov, 2009, Tsukuba, Japan program code: VPP-18.
- [7] **Jovan Mirkovic**, Saito Takashi, Yuimaru Kubo, Itsuhiro Kakeya, Ahmed Oral, Takashi Yamamoto, Kazuo Kadowaki, *Vortex States in Intrinsic Josephson Junctions of Bi₂Sr₂CaCu₂O_{8+d} in High Parallel Magnetic Fields*, X34.6, 2009 APS March Meeting of the American Physical Society, March 15-20, 2009; Pittsburgh, Pennsylvania, USA.
- [8] **Jovan Mirkovic**, *Vortex States in Bi₂Sr₂CaCu₂O_{8+d} Superconductors and THz electromagnetic Waves*, International Scientific Conference on CONTEMPORARY MATERIALS, 3-4. 07. 2009, Academy of Science and Arts of the Republika Srpska, Banja Luka
- [9] **Jovan Mirkovic**, *Vortex matter in Bi₂Sr₂CaCu₂O_{8+d} Superconductors in high parallel magnetic fields*, International Conference on Quantum Phenomena at Nanoscale, 30.08.-04.09. 2009, Milocer, Montenegro
- [10] **Jovan Mirkovic**, Saito Takashi, Takanari Kashiwagi, Takashi Yamamoto, Kazuo Kadowaki, *Crossing Vortex Lattice and Lock-in Vortex State in Mesoscopic Bi₂Sr₂CaCu₂O_{8+d} Crystal*, The 9th International Conference on Materials and Mechanisms of Superconductivity (M2S-IX), #759, September 7-12, 2009, Tokyo, Japan.
- [11] **Jovan Mirkovic**, Saito Takashi, Takanari Kashiwagi, Itsuhiro Kakeya Yuimaru Kubo, , Ahmed Oral, Takashi Yamamoto, Kazuo Kadowaki, *Vortex Phases in Magnetic Fields Near ab-plane in Bi₂Sr₂CaCu₂O_{8+d} Single Crystals*, #760, The 9th International Conference on Materials and Mechanisms of Superconductivity (M2S-IX), September 7-12, 2009, Tokyo, Japan.
- [12] **Jovan Mirkovic**, Yuimaru Kubo, Ahmet Oral, Kei Murata, Takashi Yamamoto, and Kazuo Kadowaki / *Vortex Matter in Bulk and Mesoscopic Bi₂Sr₂CaCu₂O_{8+d} Single Crystals in High Magnetic Fields* // 20pWF-1, 62nd Annual Meeting of the Physical Society of Japan, 18-23 March, 2007, Kagoshima, Japan, Bulletin Vol 62, Issue 1, Part 3, p. 622. ISSN 1342-8349.
- [13] **Jovan Mirkovic**, Yuimaru Kubo, Ahmet Oral, Kei Murata, Takashi Yamamoto, Itsuhiro Kakeya, and Kazuo Kadowaki / *Vortex Matter in Bulk and Mesoscopic Bi₂Sr₂CaCu₂O_{8+d} Single Crystals in Single Magnetic Field* // Turkish Physical Society 24th International Physics Congress 28 - 31 August 2007, Malatya, Turkey.
- [14] K. Kadowaki, I. Kakeya, T. Yamamoto, Y. Kubo, K. Yamaki, N. Shimezu, K. Murata, T. Asada, M. Kohro, K. Kawamata, T. Nabemoto, F. Fukui, S. Yasunaga, T. Saito, M. Namai, H. Yamaguchi, S. Sato, **J. Mirkovic**, and E. Yakinci / *Vortices in Superconductors: Jugglers in a Perfect Superconductor* // #03, 41th International Symposium on Future-Oriented Interdisciplinary Materials Science, 12-13 March, 2007, Tsukuba, Japan, p. 9.
- [15] Yuimaru Kubo, Itsuhiro Kakeya, **Jovan Mirkovic**, Ahmet Oral, Kazuo Kadowaki / #P15, *Josephson Vortex Dynamics in Mesoscopic Layered High-Tc Bi₂Sr₂CaCu₂O_{8+d} Superconductor under High Magnetic Fields* // #03, 4th International Symposium on Future-Oriented Interdisciplinary Materials Science, 12-13 March, 2007, Tsukuba, Japan, p. 64.
- [16] Y. Kubo, I. Kakeya, T. Yamamoto, **J. Mirkovic**, A. Oral, and K. Kadowaki / *Vortex States Close to the a-plane in Bi-2212 under High Magnetic Fields* // 20pWF-2, 62nd Annual Meeting of the Physical Society of Japan, 18-23 March, 2007, Kagoshima, Japan, Bulletin Vol 62, Issue 1, Part 3, p. 622. ISSN 1342-8349
- [17] **J. Mirkovic**, Y. Kubo, I. Kakeya, T. Yamamoto, A. Oral, H. Ikeda, T. Koyano, and K. Kadowaki / *Relationship of Crossing Vortex Lattice and Lock-in Vortex State in Mesoscopic Bi₂Sr₂CaCu₂O_{8+d} Crystal* //2nd International Autumn Seminar on Nanoscience and Engineering in Superconductivity for Young Scientists', 25 Nov - 02 Dec, 2007, Nasu, Japan.
- [18] **J. Mirkovic**, Y. Kubo, I. Kakeya, T. Yamamoto, A. Oral, H. Ikeda, T. Koyano, and K. Kadowaki / *Relationship of Crossing Vortex Lattice and Lock-in Vortex State in Mesoscopic Bi₂Sr₂CaCu₂O_{8+d} Crystal* //2nd International Autumn Seminar on Nanoscience and Engineering in Superconductivity for Young Scientists', 25 Nov - 02 Dec, 2007, Nasu, Japan.
- [19] **Jovan Mirkovic** / *Vortex Phases in Bi₂Sr₂CaCu₂O_{8+d} Single Crystals in Tilted Magnetic Fields* // International Autumn Seminars on Nanoscience and Engineering in Superconductivity for Young Scientists, November 23-29, 2006, Atagawa Heights, Kamo-gun, Shizuoka, Japan, p. 168. [K5.2; 1]
- [20] Y. Kubo, I. Kakeya, M. Kohri, K. Kawamata, K. Fukui, T. Yamamoto, **J. Mirkovic**, and K. Kadowaki / *Lock-in Transition and Magnetic field Dependence of Pancake Vortex Penetration in Bi₂Sr₂CaCu₂O_{8+d} Mesoscopic Intrinsic Josephson Junctions* // International Autumn Seminars on Nanoscience and Engineering in Superconductivity for Young Scientists, November 23-29, 2006, Atagawa Heights, Kamo-gun, Shizuoka, Japan, p. 166.
- [21] **J. Mirkovic**, K. Murata, T. Yamamoto, I. Kakeya, and K. Kadowaki / *Vortex Phases in Pristine and Irradiated Bi₂Sr₂CaCu₂O_{8+d} Single Crystals in Magnetic Fields Near ab-plane* // VP-10, 19th International Symposium on Superconductivity, October 30 - November 1, 2006, Nagoya, Japan [K5.1; 2]
- [22] K. Murata, **J. Mirkovic**, S. Hayama, I. Kakeya, T. Yamamoto, and K. Kadowaki / *Study of lock-in transition and Josephson vortex in Bi₂Sr₂CaCu₂O_{8+d} by Corbino geometry and miniature coils* // 24aPS-85, Autumn Meeting of the Physical Society of Japan, 23-26 September, 2006, Chiba, Japan, Bulletin Vol 61, Issue 2, Part 3, p. 460. ISSN 1342-8349
- [23] **Jovan Mirkovic**, Kei Murata, Sergey Savel'ev, Hirokazu Satou, Takashi Yamamoto, Itsuhiro Kakeya, Franco Nori, and Kazuo Kadowaki / *Vortex solid phase in irradiated Bi₂Sr₂CaCu₂O_{8+d} crystals in tilted magnetic fields* // 26ZG-9, Autumn Meeting of the Physical Society of Japan, 23-26 September, 2006, Chiba, Japan, Bulletin Vol 61, Issue 2, Part 3, p. 516. ISSN 1342-8349 [K5.2; 1]
- [24] **Jovan Mirkovic**, Kei Murata, Hirokazu Sato, Takashi Yamamoto, Itsuhiro Kakeya, and Kazuo Kadowaki / *Vortex Phases in Pristine and Irradiated Bi₂Sr₂CaCu₂O_{8+d} Single Crystals in Tilted Magnetic Fields* // P-Tu-H-17, 8th International Conference on Materials and Mechanism of Superconductivity and High Temperature Superconductors (M2S-HTSC VIII), July 9-14, 2008, Dresden, Germany, p. 270.

- [25] K. Murata, **J. Mirković**, I. Kakeya, T. Yamamoto, H. Satou, and K. Kadowaki / Study of Lock-in State in $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+x}$ by Corbino geometry // 27aPS-10, 61st Annual Meeting of the Physical Society of Japan, 27-30 March, 2006, Ehime and Matsuyama Universities, Japan, Bulletin Vol 61, Issue 1, Part 3, p. 521. ISSN 1342-8349
- [26] **Jovan Mirković**, Sergey Savel'ev, Hirokazu Safo, Takashi Yamamoto, Itsuhiro Kakeya, Franco Nori, Kazuo Kadowaki / Melting of Vortex Solid Phase in Irradiated $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+x}$ Single Crystals in Tilted Magnetic Fields // #A38.00003, March Meeting of the American Physical Society, 13-17 March 2006, Baltimore, USA, www.aps.org/meetings/baps, ISSN 0003-0503.
- [27] A. Nakano, **J. Mirković**, K. Sato, K. Murata, T. Yamamoto, T. Yamamoto, I. Kakeya, and K. Kadowaki / Study of vortex phase diagram and dynamics of crossing lattice state in $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+x}$ // 27pWF-7, 60th Annual Meeting of the Physical Society of Japan, March 24-27, 2005, Tokyo University of Science, Japan, Bulletin Vol 60, Issue 1, Part 3, p. 617. ISSN 1342-8349
- [28] **J. Mirković**, A. Nakano, K. Satou, T. Yamamoto, T. Yamamoto, and K. Kadowaki / Dominant Phase Transitions in $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+x}$ Single Crystals in Tilted Magnetic Fields // 27pWF-5, 60th Annual Meeting of the Physical Society of Japan, March 24-27, 2005, Tokyo University of Science, Japan, Bulletin Vol 60, Issue 1, Part 3, p. 616. ISSN 1342-8349 [K5.2; 1]
- [29] **Jovan Mirković** / Vortex Structures in Tilted Magnetic fields in Layered $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+x}$ Superconductors // 21st Century Center of Excellence Program, International Symposium "Promotion of Creative Interdisciplinary Materials Science for Novel Functions", #1, 13. 07. 2005, Tsukuba, Japan.
- [30] **J. Mirković**, A. Nakano, H. Satou, T. Yamamoto, and K. Kadowaki / Vortex phases and transitions in $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+x}$ Single Crystals in Tilted Magnetic Fields // International Workshop on Vortex Physics, 8-14 January 2005, Mumbai, India.
- [31] **J. Mirković**, A. Nakano, H. Satou, T. Yamamoto, and K. Kadowaki / Comparative Study of Vortex Phase Transitions in $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+x}$ Single Crystals in Tilted Magnetic Fields // March Meeting of the American Physical Society, 21-25 March 2005, Los Angeles, USA, www.aps.org/meetings/baps ISSN 0003-0503
- [32] H. Sato, **J. Mirković**, A. Nakano, T. Yamamoto, I. Kakeya, and K. Kadowaki / Study of Vortex States in $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+x}$ Single Crystals irradiated With Heavy Ions // 27pWF-4, 60th Annual Meeting of the Physical Society of Japan, March 24-27, 2005, Tokyo University of Science, Japan, Bulletin Vol 60, Issue 1, Part 3, p. 616. ISSN 1342-8349.
- [33] **J. Mirković**, K. Murata, H. Satou, T. Yamamoto, I. Kakeya, and K. Kadowaki // Vortex Structures in Tilted Magnetic Fields in $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+x}$ Single Crystals // 18th International Symposium on Superconductivity (ISS 2005), October 24-26, Tsukuba, Japan.
- [34] **J. Mirković**, A. Nakano, H. Satou, and K. Kadowaki / Moving Crossing Lattice in $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+x}$ Single Crystals // 17th International Symposium on Superconductivity, November 23-25, 2004, Niigata, Japan, VP-14, p. 113.
- [35] **J. Mirković**, A. Nakano, H. Satou, S. Hayama, T. Yamamoto, and K. Kadowaki / Vortex Phases and Phase Transitions in $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+x}$ Single Crystals in Tilted Magnetic Fields // Joint Meeting of 3rd Int. Symp. "Future Oriented Interdisciplinary Materials Science", Int. Symp. "Nanoscience and Engineering in Superconductivity", and 4th Int. Symp. "Intrinsic Josephson Effect and Plasma Oscillations in High-Tc Superconductors", November 24-28, 2004, Tsukuba, Japan, p. II-137, [K5.1; 2]
- [36] **Jovan Mirković** / Vortex Structures in Layered $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+x}$ Superconductors // 21st Century Center of Excellence Program, International Symposium "Promotion of Creative Interdisciplinary Materials Science for Novel Functions", #1, 22. 12. 2004, Tsukuba, Japan
- [37] A. Nakano, **J. Mirković**, H. Sato, K. Murata, T. Yamamoto, I. Kakeya, K. Kadowaki // Study of crossing lattice state in $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+x}$ by Corbino geometry // Joint Meeting of 3rd Int. Symp. "Future Oriented Interdisciplinary Materials Science", Int. Symp. "Nanoscience and Engineering in Superconductivity", and 4th Int. Symp. "Intrinsic Josephson Effect and Plasma Oscillations in High-Tc Superconductors", November 24-28, 2004, Tsukuba, Japan
- [38] **Jovan Mirković**, Shintaro Hayama, Atsushi Nakano, Takashi Yamamoto, Itsuhiro Kakeya, and Kazuo Kadowaki / Vortex-solid and vortex-liquid phases in $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+x}$ single crystals // March Meeting 2004 (March 22-26, 2004) Montreal, Canada # U12-7, Bulletin of the Annual American Physical Society, Vol. 49, No. 1, Part 2, p.1138, www.aps.org/meetings/baps ISSN:0003-0503
- [39] Kazuo Kadowaki, Shintaro Hayama, and **Jovan Mirković** / From crossing to Josephson vortex states in $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+x}$ // March Meeting 2004, March 22-26, 2004, Montreal, Canada # U12-10, Bulletin of the Annual American Physical Society, Vol. 49, No. 1, Part 2, p.1139, www.aps.org/meetings/baps ISSN: 0003-0503.
- [40] S. Hayama, **J. Mirković**, I. Kakeya, T. Yamamoto, and K. Kadowaki / Study of crossing vortex lattice state in $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+x}$ by local ac permeability measurements // 59th Annual Meeting of the Physical Society of Japan, #30aXB-10, March 27-30, 2004, Kyushu University, Japan, Meeting Abstracts of the Phys. Soc. J, Vol 59, Issue 1, Part 3, p. 638, ISSN 1342-8349
- [41] A. Nakano, **J. Mirković**, I. Kakeya, T. Yamamoto, and K. Kadowaki / Doping dependence of vortex state of HTSC $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+x}$ in tilted magnetic fields // 59th Annual Meeting of the Physical Society of Japan, #28aPS-28, March 27-30, 2004, Kyushu University, Japan, Meeting Abstracts of the Phys. Soc. J, Vol 59, Issue 1, Part 3, p.662. ISSN 1342-8349.
- [42] **J. Mirković**, S. Hayama, A. Nakano, T. Yamamoto, and K. Kadowaki / Vortex phases in $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+x}$ single crystals studied by local ac magnetic response // The First Workshop on Superconducting Nano-science and Applications, 31st March 2004, Beppu, Japan, p.37.
- [43] A. Nakano, **J. Mirković**, I. Kakeya, T. Yamamoto, and K. Kadowaki / Doping dependence of vortex state of HTSC $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+x}$ in tilted magnetic fields // The First Workshop on Superconducting Nano-science and Applications, 31st March 2004, Beppu, Japan, p.38.
- [44] A. Nakano, **J. Mirković**, I. Kakeya, T. Yamamoto, and K. Kadowaki / Doping dependence of vortex state of HTSC $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+x}$ in tilted magnetic fields // Workshop on Solid State Physics, June 16, 2004, Inst. of Materials Science, University of Tsukuba, Tsukuba, Japan.
- [45] **J. Mirković**, A. Nakano, H. Satou, T. Yamamoto, and K. Kadowaki // Comparative Study on Vortex Matter Phase Transitions under Tilted Magnetic Fields in $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+x}$ // #12pZA-1, Autumn Meeting of the Physical Society of Japan, September 12-15, 2004, Aomori, Japan, Vol. 59, Issue 2, Part 3 p. 443, ISSN 1342-8349.
- [46] **J. Mirković**, A. Nakano, H. Satou, S. Hayama, T. Yamamoto, and K. Kadowaki / Vortex Phases and Phase Transitions in $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+x}$ Single Crystals in Tilted Magnetic Fields // Proc. of Joint Meeting of 3rd Int. Symp. "Future Oriented Interdisciplinary Materials Science", Int. Symp. "Nanoscience and Engineering in Superconductivity", and 4th Int. Symp. "Intrinsic Josephson Effect and Plasma Oscillations in High-Tc Superconductors", November 24-28, 2004, Tsukuba, Japan, p. II-137.
- [47] H. Satou, **J. Mirković**, T. Yamamoto, and K. Kadowaki / Study of crossing lattice states in $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+x}$ single crystal by local ac permeability measurements // #13aPS-14, Autumn Meeting of the Physical Society of Japan, September 12-15, 2004, Aomori, Japan, Vol. 59, Issue 2, Part 3 p. 463, ISSN 1342-8349
- [48] A. Nakano, **J. Mirković**, T. Yamamoto, and K. Kadowaki // Study of crossing lattice state in $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+x}$ by Corbino geometry // Autumn Meeting of the Physical Society of Japan, September 12-15, 2004, Aomori, Japan, Vol. 59, Issue 2, Part 3 p. 574, #15aRB-9, ISSN 1342-8349.
- [49] S. Hayama, T. Yamamoto, I. Kakeya, **J. Mirković**, K. Kadowaki / Vortex Crossing Lattice Phase Transitions in Single Crystalline $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+x}$ // 16th International symposium on superconductivity (ISS 2003), October 27-29, 2003, Tsukuba, Japan, VPP-22, p.176.
- [50] S. Savel'ev, **J. Mirković**, K. Kadowaki, F. Nori / Fluctuations in the Josephson-Pancake combined vortex lattice // #64, The Joint 9th International Workshop on Vortex Dynamics and Vortex Matter (ESF), June 22nd - 27th 2003, Oleron Island, France.

- [51] Jovan Mirković, Shintaro Hayama, Itsushiro Kakeya, Kazuo Kadowaki / Dynamics of Vortex Phases of Bi-2212 Single Crystals Near ab-plane // March Meeting of the American Physical Society, March 3-7, 2003, Austin TX, U.S.A, Bulletin Vol 48, No.1, Part II, V20/6, p. 1081. www.aps.org/meetings/baps
- [52] S. Hayama, J. Mirković, I. Kakeya, K. Kadowaki / Study of vortex state in High-Tc superconductors in nearly parallel fields by local ac permeability measurements // 29pZN-12, 58th Annual Meeting of the Physical Society of Japan, March 28-31, 2003, Tohoku University, Kawauchi, Japan, Vol. 53, Issue 1, Part 3, p. 552. ISSN 1342-8349.
- [53] S. Hayama, J. Mirković, K. Kadowaki / Vortex State and Phase Diagram of $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8-x}$ in Parallel Magnetic Fields // 6pXB-12, 2002 Autumn Meeting of the Physical Society of Japan, Sept 6-9, 2002, Chubu University, Nagoya, Japan, Vol. 57, Issue 2, Part 3, p.464.
- [54] S. Savel'ev, J. Mirković, K. Kadowaki / Vortex lattice melting transition under the influence of the c-axis current // 21BP50, p. 49, The 23rd International Conference on Low Temperature Physics, August 20-27, 2002, Hiroshima, Japan.
- [55] K. Kadowaki, J. Mirković, and S. Savel'ev / Phase diagram in highly anisotropic layered superconductors: crossing lattice melting transition // 23BP73, p.314. The 23rd International Conference on Low Temperature Physics, August 20-27, 2002, Hiroshima, Japan.
- [56] S. Savel'ev, J. Mirković, F. Nord / Vortex fluctuations in the crossing lattice structures // 23BP79, p. 316, The 23rd International Conference on Low Temperature Physics, August 20-27, 2002, Hiroshima, Japan.
- [57] J. Mirković, S. Savel'ev, S. Hayama, E. Sugahara, K. Kadowaki / Vortex Phases in Single Crystals of $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8-x}$ Near ab-plane Studied by c-axis and In-plane Resistivity Measurements // 26BP60, p.561, The 23rd International Conference on Low Temperature Physics, August 20-27, 2002, Hiroshima, Japan.
- [58] J. Mirković, S. Savel'ev, K. Kadowaki / Suppression of Surface Barriers in Single Crystals of $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8-x}$ in In-plane Magnetic Fields // 26BP69, p.561, The 23rd International Conference on Low Temperature Physics, August 20-27, 2002, Hiroshima, Japan.
- [59] S.E. Savel'ev, J. Mirković, and K. Kadowaki / Vortex fluctuations in the crossing vortex lattice and temperature and angular dependence of the vortex lattice melting transition // 24aWB-6, 57th Annual Meeting of the Physical Society of Japan, 24-27 March, 2002, Ritsumeikan University, Kyoto, Japan, Vol. 57, Issue 1, Part 3, p. 463.
- [60] E. Sugahara, J. Mirković, Sergey E. Savel'ev, S. Hayama, and K. Kadowaki / Vortex lattice melting transition in simultaneous c-axis and in-plane resistivity measurements // 26pWB-4, 57th Annual Meeting of the Physical Society of Japan, 24-27 March, 2002, Ritsumeikan University, Kyoto, Japan, Vol. 57, Issue 1, Part 3, p. 463.
- [61] J. Mirković, S.E. Savel'ev, S. Hayama, E. Sugahara and K. Kadowaki / Melting Transition in Single Crystal of $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8-x}$ Studied by c-axis and in-plane Resistivity Measurements Near ab-plane // March Meeting of The American Physical Society, 17-22 March, 2002, Indianapolis, USA.
- [62] S.E. Savel'ev, J. Mirković, and K. Kadowaki / Vortex fluctuations in the crossing vortex lattice melting transition // March Meeting of The American Physical Society, 17-22 March, 2002, Indianapolis, USA.
- [63] K. Kadowaki, S. Hayama, I. Kakeya, T. Yamamoto and J. Mirković / Phase transitions in crossing vortex lattice system in nearly parallel magnetic fields // 15th International symposium on superconductivity (ISS 2002), November 11-13, 2002, Yokohama, Japan, PCP-64, p. 178.
- [64] J. Mirković, S.E. Savel'ev, E. Sugahara and K. Kadowaki / Melting Transition in Single Crystals of $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8-x}$ Studied by the c-axis and in-plane Resistivity Measurements in Parallel Magnetic Fields // #VP-9, 14th International Symposium on Superconductivity, Kobe, Japan, September 25-27, 2001.
- [65] J. Mirković, S.E. Savel'ev, E. Sugahara and K. Kadowaki / Dimensionality of Vortex Solid and Liquid Phases in Single Crystals of $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8-x}$ Studied by the Resistivity Measurements // #VP-11, 14th International Symposium on Superconductivity, Kobe, Japan, September 25-27, 2001.
- [66] S.E. Savel'ev, J. Mirković, and K. Kadowaki / Influence of Force-Free Current on Vortex Lattice Melting Transition // #VP-12, 14th International Symposium on Superconductivity, Kobe, Japan, September 25-27, 2001.
- [67] S.E. Savel'ev, J. Mirković, and K. Kadowaki / Elasticity of Combined Pancake and Josephson Vortex Lattice // #VP-3, 14th International Symposium on Superconductivity, Kobe, Japan, September 25-27, 2001.
- [68] K. Kadowaki, J. Mirković, S. Savel'ev, and E. Sugahara / Phase Diagram and Scaling Law in Bi2212 in H//ab // Autumn Meeting of the Physical Society of Japan, Tokushima Bunri University, Tokushima, Japan, #17PYA-3, September 17-20, 2001.
- [69] S.E. Savel'ev, J. Mirković, and K. Kadowaki / Elastic Response of Crossing Pancake and Josephson Vortex Lattice // Autumn Meeting of the Physical Society of Japan, Tokushima Bunri University, Tokushima, Japan, #17a-ZB-4, Sept. 17-20, 2001.
- [70] J. Mirković, Sergey Savel'ev, and K. Kadowaki / Vortex Phase Transitions in a Single Crystal of $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8-x}$ Studied by Simultaneous In-plane and Out-of-plane Resistivity Measurements // Autumn Meeting of the Physical Society of Japan, Tokushima Bunri University, Tokushima, Japan, #17a-ZB-6, September 17-20, 2001. [K5.2; 1]
- [71] Emiko Sugahara, Jovan Mirković, Sergey Savel'ev, and Kazuo Kadowaki / Vortex Lattice Melting Transition in Tilted Magnetic Field with Corbino geometry // Autumn Meeting of the Physical Society of Japan, Tokushima Bunri University, Tokushima, Japan, #17a-ZB, September 17-20, 2001.
- [72] K. Kadowaki, K. Kimura, K. Kamisawa, E. Sugahara, S. Savel'ev, and J. Mirković / Experimental Evidence for Two Liquid Phases in $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8-x}$ // ESF (European Science Foundation) Vortex Workshop on Critical Properties of Vortex Matter, Loen, Norway, June 21-24, 2001.
- [73] K. Kadowaki, K. Kimura, K. Kamisawa, E. Sugahara, S. Savel'ev, and J. Mirković / Vortex Matter Phases in Highly Anisotropic Superconductors // II. European Conference on vortex Matter in Superconductors, September 15-25, 2001, Crete, Greece.
- [74] J. Mirković, E. Sugahara, Sergey Savel'ev, Kazuo Kadowaki / Temperature dependence of vortex lattice melting transition in $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8-x}$ single crystals in tilted magnetic fields // March Meeting of the American Physical Society, March 12-16, 2001, Seattle, Washington, USA, #C28.007.
- [75] Kazuo Kadowaki, Kazuhiro Kimura, Shiho Kamisawa, Emiko Sugahara, Jovan Mirković / Experimental Evidence of New Swampy Vortex Phase in Bi-2212 // March Meeting of the American Physical Society, March 12-16, 2001, Seattle, Washington, USA, #L28.006.
- [76] Emiko Sugahara, Jovan Mirković, Sergey Savel'ev, and Kazuo Kadowaki / The Phase Transition in the Josephson Vortex Regime in Single Crystal $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8-x}$ // Annual Meeting of the Japanese Physical Society, March 27-30, 2001, Chuo University, Tokyo, Japan, # 28pZB-4.
- [77] S. Savel'ev, J. Mirković, and Kazuo Kadowaki / Electrodynamics of crossing pancake and Josephson vortex lattices // Annual Meeting of the Japanese Physical Society, March 27-30, 2001, Chuo University, Tokyo, Japan, # 28pZB-8.
- [78] J. Mirković, E. Sugahara, Sergey Savel'ev, Kazuo Kadowaki / The non-linear resistivity behavior in the parallel magnetic fields: indication of the vortex smectic phase in $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8-x}$ // Third International Conference on New Theories, Discoveries and Applications of Superconductors and Related Materials (New3SC-3), January 15-20, 2001, Honolulu, Hawaii, USA #W4D1645.1998, p. 310.
- [79] E. Sugahara, J. Mirković, S. Savel'ev, K. Kadowaki / Superconducting Phase Transition in Vortex Crossed Lattice // 12th JAERI Meeting on High Temperature Superconducting, 7-8 December 2000, Japan Atomic Energy Research Institute, Tokai-mura, Ibaraki, Japan.
- [80] Jovan Mirković, Sergey Savel'ev, Emiko Sugahara, Kazuo Kadowaki / Scaling of Vortex Lattice Melting Transition in Single Crystals of $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_8$ // 13th International Symposium on Superconductivity, October 14-16, 2000, Tokyo, Japan. [K4.3; 0.5]
- [81] Sergey Savel'ev, Jovan Mirković, and Kazuo Kadowaki / Novel Electrodynamics of Combined Pancake and Josephson Vortex Lattice // 13th International Symposium on Superconductivity, October 14-16, 2000, Tokyo, Japan.

- [82] Sergey Savelev, Jovan Mirković, and Kazuo Kadowaki / *Energy of Vortex System Beyond the Elastic Approximation* // 13th International Symposium on Superconductivity, October 14-16, 2000, Tokyo, Japan.
- [83] E. Sugahara, J. Mirković, S. E. Savelev, and K. Kadowaki / *The Vortex Lattice Melting Transition with Crossed Pancake Vortex Lattice and Josephson-Vortex States in Single Crystal $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8-x}$* // 55th Annual Meeting of the Physical Society of Japan, Sept. 22-25, 2000, Niigata University, Vol. 55, Issue 2, part 3, 23pSC-5, p. 503.
- [84] J. Mirković, S. E. Savelev, E. Sugahara, and K. Kadowaki / *Scaling of Vortex Lattice Melting Transition near ab-Plane in $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8-x}$* // 55th Annual Meeting of the Physical Society of Japan, Sept. 22-25, 2000, Niigata University, 23pSC-10, p. 504.
- [85] K. Kadowaki, J. Mirković, E. Sugahara, S. E. Savelev, S. Kamisawa and K. Kimura / *Vortex-Lattice Melting Transition and a Possible New Superconducting Phase Transition in the Liquid Phase in $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8-x}$* // 55th Annual Meeting of the Physical Society of Japan, September 22-25, 2000, Niigata University, 23pSC-11, p504.
- [86] K. Kadowaki, J. Mirković and E. Sugahara / *New Phase Diagram of Bi-2212 in the vicinity of parallel fields* // 18th General Conference of the Condensed Matter Division of the European Physical Society Meeting, jointly with Japanese Physical Society and the Swiss Physical Society, (CMD18-2000) 13-17 March 2000, Montreux, Switzerland, P14-49.
- [87] Jovan Mirković, Emiko Sugahara, Kazuo Kadowaki / *Step-Wise Angular Dependence of Vortex Melting Transition in Single Crystals $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8-x}$* // March Meeting of American Physical Society, March 20-24, 2000, Minneapolis, MN, USA, #C12.007, Bulletin of the Amer. Phys. Soc. Vol. 45, No. 1, p. 190.
- [88] K. Kadowaki, S. Savelev, K. Kimura, E. Sugahara, J. Mirković / *Phase Transitions from Pancakes to Josephson Vortex State in $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8-x}$* // March Meeting of American Physical Society, March 20-24, 2000, Minneapolis, MN, USA, #C12.006, Bulletin of the Amer. Phys. Soc. Vol. 45, No. 1, p. 190.
- [89] S.E. Savelev, J. Mirković, E. Sugahara, K. Kadowaki / *The penetration of Josephson vortices into layered superconductors* // Annual Meeting of Japanese Physical Society, Osaka, Japan, 22-25 March, 2000, Vol. 55, Issue 1, part 1, 22aZM-3, p. 438.
- [90] E. Sugahara, J. Mirković, S. Savelev, K. Kadowaki / *Vortex Lattice Melting Transition from Crossed Pancake to Josephson Vortex State in $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8-x}$* // Annual Meeting of Japanese Physical Society, Kansai University, Osaka, 22-25 March, 2000, Vol. 55, Issue 1, part 1, 23pZJ-6, p. 501.
- [91] Jovan Mirković, Sergey Savelev, Emiko Sugahara and Kazuo Kadowaki / *Novel Angular Dependence of Vortex Melting Transition in Single Crystal $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8-x}$* // 6th International Conference on Materials and Mechanisms of Superconductivity and High-Temperature Superconductors, February 20-25, 2000, Houston, Texas, USA, #1P02-87.
- [92] Jovan Mirković and Kazuo Kadowaki / *Vortex Dynamics in Low Magnetic Fields in Single Crystal $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8-x}$* // 6th International Conference on Materials and Mechanisms of Superconductivity and High-Temperature Superconductors, February 20-25, 2000, Houston, Texas, USA, #2P01-22.
- [93] Kazuo Kadowaki, Jovan Mirković, Sergey Savelev and Emiko Sugahara / *Anomalous Angular Dependence of Vortex Melting Transition in Single Crystal $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8-x}$* // 6th International Conference on Materials and Mechanisms of Superconductivity and High-Temperature Superconductors, February 20-25, 2000, Houston, Texas, USA, #2P01-42.
- [94] J. Mirković, E. Sugahara and K. Kadowaki / *Vortex Phases in Single Crystals $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8-x}$ in Tilted Magnetic Fields Studied by Resistivity Measurements* // XII Int. Symp. on Superconductivity 16-19 Nov. 1999, Morioka, Japan, #VP-11, p. 28.
- [95] J. Mirković, E. Sugahara and K. Kadowaki / *Vortex Dynamics in Single Crystals $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8-x}$ Studied by Corbino Geometry* // Sectional Meeting of Japanese Phys. Society, 24-27 Sept 1999, Morioka, Iwate, Japan, Vol. 54, Issue 2, part 3, p. 446.
- [96] E. Sugahara, J. Mirković and K. Kadowaki / *Vortex Melting Transition in Tilted Magnetic Fields in Single Crystals $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8-x}$* // Sectional Meeting of Japanese Phys. Society, 24-27 Sept 1999, Morioka, Iwate, Japan, Vol. 54, Issue 2, part 3, p. 462.
- [97] J. Mirković, K. Kimura, E. Sugahara and K. Kadowaki / *Vortex Phases in Single Crystals Bi-2212 Studied by Corbino Geometry for H/c and Tilted Magnetic Fields* // First Euro conference on Vortex Matter in Superconductors, 18-24 Sept 1999, Crete, Greece. #p.VD.10.
- [98] Jovan Mirković, Emiko Sugahara and Kazuo Kadowaki / *Vortex Lattice Melting Transition in Oblique Magnetic Fields in Single Crystals $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8-x}$* // 12th International Conference on Low Temperature Physics, August 4-11, 1999, Espoo and Helsinki, Finland, #5Q28, p. 95.
- [99] Jovan Mirković and Kazuo Kadowaki / *Nonlinear resistivity in vortex liquid and surface barriers in single crystals $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8-x}$* // 12th International Conference on Low Temperature Physics, August 4-11, 1999, Espoo and Helsinki, Finland, #6Q14, p. 215.
- [100] J. Mirković, K. Kimura, and K. Kadowaki / *First-Order to Second-Order Phase Transition in Vortex State in Single Crystals $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8-x}$* // International Conference on Physics and Chemistry of Molecular and Oxide Superconductors, 28.07-2.08. 1999, Stockholm, Sweden, #SP06, p. 169.
- [101] J. Mirković, K. Kimura, I. Kakeya, and K. Kadowaki / *Resistivity Anomaly above Vortex-Lattice Melting Transition in Single Crystal $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8-x}$* // International Conference on Physics and Chemistry of Molecular and Oxide Superconductors, 28.07 - 2.08. 1999, Stockholm, Sweden, #FP27, p. 98.
- [102] J. Mirković, E. Sugahara, and K. Kadowaki / *Vortex Dynamics in Single Crystals $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8-x}$ in Tilted Magnetic Fields* // International Conference on Physics and Chemistry of Molecular and Oxide Superconductors, 28.07 - 2.08. 1999, Stockholm, Sweden, #F4-7, p. 73.
- [103] J. Mirković, K. Kimura and K. Kadowaki / *Nonlinear Resistivity in Vortex Liquid Phase in Single Crystals $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8-x}$* // Annual Meeting of Japanese Physical Society, 31.03-04.04 1999, Hiroshima, Japan, Vol. 54, Issue 1, part 3, p. 526.
- [104] Jovan Mirković, Kazuhiro Kimura, Itsuhiro Kakeya, and Kazuo Kadowaki / *Non-Ohmic Resistivity and Surface Barriers in Single Crystals $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8-x}$* // March Meeting of The American Physical Society, March 21-25, 1999, Atlanta, USA, #ZC27.03, Bulletin of the Amer. Phys. Soc. Vol. 44, No. 1, part II, p. 1930.
- [105] Jovan Mirković and Kazuo Kadowaki / *Resistivity in Single Crystals $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8-x}$: Limits of 2D Scaling* // March Meeting of The American Physical Society, March 21-25, 1999, Atlanta, USA, #RP05.40, Bulletin of the Amer. Phys. Soc. Vol. 44, No. 1, part II, p. 1286.
- [106] J. Mirković and K. Kadowaki / *Dynamical Resistivity Behavior above and below Vortex Lattice Melting Transition in Single Crystalline $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8-x}$* // 11th International Symposium on Superconductivity, Fukuoka, Japan, 16-19, Nov. 1998).
- [107] Jovan Mirković and Kazuo Kadowaki / *Anomalous Resistivity Behavior Above Vortex-Lattice Melting Transition in Single Crystals $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8-x}$* // Sectional Meeting of Japanese Physical Society, 24-27 September 1998, Naha, Okinawa, Japan, Vol. 53, Issue 2, part 3, p. 625.
- [108] J. Mirković, K. Kimura and K. Kadowaki / *Moving Vortex States in $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8-x}$ in Tilted Fields* // International Workshop on Vortex Physics in High Temperature Superconductors, June 21-26, 1998, Hachimantai, Japan, #49.
- [109] Jovan Mirković and Kazuo Kadowaki / *Angular Dependence of the Vortex Lattice Melting Transition in Single Crystals $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8-x}$* // 53rd Annual Meeting of Japanese Physical Society, 30.03 - 2.04. 1998, Narashino, Japan, Vol. 53, Issue 1, part 3, p. 524.
- [110] Jovan Mirković and Kazuo Kadowaki / *Vortex Dynamics Near the First Order Flux Lattice Melting Transition in $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8-x}$* // March Meeting of American Physical Society, Los Angeles, March 16-20, 1998, Los Angeles, USA, Vol. 43, No1, p 605.
- [111] Jovan Mirković and Kazuo Kadowaki / *Vortex State in Single Crystalline $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8-x}$ Studied by Resistivity Measurements in Tilted Magnetic Fields* // March Meeting of American Physical Society, Los Angeles, March 16-20, 1998, Los Angeles, USA, Vol. 43, No1, p 686.

- [112] J. Mirković, K. Kimura and K. Kadowaki / *Vortex Melting Transition in $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{7-x}$: Dependence on Current Density, Magnetic Field and its Orientation* // Sectional Meeting of Japanese Physical Society, 5-10 October 1997, Kobe, Japan, Vol 62, Issue 2, Part 3, p. 654.
- [113] J. Mirković, A.V. Kalinov and K. Kadowaki / *Nonmonotonic Temperature and Field Dependence of Critical Current Density in $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$* // Sectional Meeting of Japanese Physical Society, 5-10 October 1997, Kobe, Japan, Vol 62, Issue 2, Part 3, p. 695.
- [114] J. Mirković, K. Kadowaki and T. Mochiku / *First Order Vortex Lattice Melting Transition in Single Crystalline $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{7-x}$ in Oblique Magnetic Fields* // 16th General Conference of the European Physical Society Condensed Matter Division, 25.08 - 28.08. 1997, Leuven, Belgium, p. 266.
- [115] J. Mirković, L.M. Fisher, A.V. Kalinov, I.F. Voloshin and V.M. Soukhov / *Temperature Dependence Anomaly of J_c in Textured $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$* // 16th General Conference of the European Physical Society Condensed Matter Division, 25 - 28. 08. 1997, Leuven, Belgium, p. 267.
- [116] K. Kadowaki, J. Mirković, and T. Mochiku / *Vortex-Lattice-Melting Phase Transition in $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{7-x}$ in Tilted Magnetic Fields* // 4th International Workshop on Vortex Matter in HTSC, Monte Verita, Ascona, Switzerland, 15-20 June 1997.
- [117] J. Mirković and D.A. Komar'kov / *Current Voltage Characteristics of $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ in Wide Range of Electric Fields* // Proc. of the 8th Int. Workshop on Critical Currents in Superconductors, 27 - 29 May 1996, Kitakyushu, Japan, p. 191., Singapore, World Scientific (ISBN: 9810228589).
- [118] J. Mirković, T. Mochiku, K. Kimura and K. Kadowaki / *Flux-Line Lattice Melting Phenomena in $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{7-x}$ in Oblique Magnetic Fields* // 9th International Symposium on Superconductivity, Sapporo, Hokaido, Japan, October 21-24, 1996, #FFP-26, p.100. [K4.3; 0.5]
- [119] L.M. Fisher, A.V. Kalinov, J. Mirković, I.F. Voloshin, A. Bondarenko, M. Obolenskii // *Twin Boundaries Effects on the Anisotropy of the Critical Current Density and Fishtail in YBCO Single Crystals* // European Conference of Applied Superconductivity (EUCAS) 3-6 July 1995, Edinburgh, Scotland, #LC4.06.
- [120] L.M. Fisher, A.V. Kalinov, J. Mirković, I.F. Voloshin, V.S. Gorbachev, S.E. Savel'ev / *On the Barrier for the a.c. Magnetic Field Penetration Proportional to the Bulk Critical Current* // European Conference of Applied Superconductivity (EUCAS) 3-6 July 1995, Edinburgh, Scotland, #LF3.09.
- [121] L.M. Fisher, A.V. Kalinov, J. Mirković, I.F. Voloshin, A. Bondarenko, M. Obolenskii, R.L. Snyder / *Comparative Study of the Anisotropy of the Critical Current Density in Bulk Textured and Single Crystal YBCO* // European Conference of Applied Superconductivity 3-6 July 1995, Edinburgh, Scotland.
- [122] L.M. Fisher, A.V. Kalinov, J. Mirković, I.F. Voloshin / *The Abnormal Temperature Dependence of the Critical Current Density in Textured YBCO* // European Conference of Applied Superconductivity 3-6 July 1995, Edinburgh, Scotland.
- [123] L.M. Fisher, A.V. Kalinov, J. Mirković, I.F. Voloshin, A. Bondarenko, M. Obolenskii, R.L. Snyder / *Angular dependence of the critical current density in YBCO samples on the magnetic field orientation* // Proc. of IV European Ceramic Conference (ECerS), Riccione, Italy, Oct. 2-6, 1995, High-Tc Superconductors, - part II, Vol. 7, p. 71., Gruppo editoriale faenza editrice S.p.A, Faenza, Italy 1995.
- [124] L.M. Fisher, A.V. Kalinov, J. Mirković, I.F. Voloshin, A. Bondarenko, M. Obolenskii, R.L. Snyder / *Temperature and Magnetic Field Dependence of the Critical Current Density in Textured YBCO samples* // Proc. of IV European Ceramic Conference (ECerS), Riccione, Italy, Oct. 2-6, 1995, High-Tc Superconductors (Editors B.S. Tranchina and A. Bellosi)- part II, Vol. 7, p.99. Gruppo editoriale faenza editrice S.p.A, Faenza, Italy 1995.
- [125] V.N. Nikiforov, Yu. Kochelkov, J. Mirković, J. Barakatova, Yu.D. Seropegin / *Magnetic properties of SmPd_2Si_2 and related compounds* // 6th European Magnetic Materials and Application Conference, Vienna, Austria, 4 - 8 Sept 1995, # 642.
- [126] L.M. Fisher, A.V. Kalinov, J. Mirković, I.F. Voloshin, S.A. Zver'kov, A. Bondarenko, M. Obolenskii, Y.A. Yampolskii and R.L. Snyder / *Comparative Study of the Anisotropy of the Critical Current Density in Bulk Textured and Single Crystals YBCO* // MRS 1995 Fall Meeting, Defects in HTSC - Characterization and Relations to Processing and Properties, Boston, USA, 27th Nov. - 1st Dec. 1995, #F3.30.
- [127] L.M. Fisher, A.V. Kalinov, J. Mirković, I.F. Voloshin, A.V. Bondarenko, M.A. Obolenskii, R.L. Snyder, K.I. Kugel and A.L. Rakhmanov / *Twin Boundaries Effect on the Anisotropy of the Critical Current Density in YBCO Single Crystals* // Three-lateral German-Russian-Ukraine Workshop on High Temperature Superconductivity, Lviv, Ukraine, 6-9 Sept. 1995.
- [128] L.M. Fisher, A.V. Kalinov, J. Mirković, I.F. Voloshin, S.A. Zver'kov, A. Bondarenko, M. Obolenskii / *Anisotropy of AC Magnetic Susceptibility and J_c in YBCO Bulk Textured Samples and Single crystals* // 7th Conference on Superconductivity and Applications, Buffalo, USA, 7-9 September 1994.
- [129] L.M. Fisher, V.S. Gorbachev, A.V. Kalinov, J. Mirković, S.E. Savel'ev, I.F. Voloshin, V.A. Yampol'skii / *Nonlocal Critical State Model for Hard Superconductors* // 7th Conference on Superconductivity and Applications, Buffalo, USA, 7-9 September 1994.
- [130] L.M. Fisher, J. Mirković, I.F. Voloshin, N.M. Makarov, V.A. Yampol'skii, F. Perez Rodriguez and R.L. Snyder / *Frequency limitations for the Applicability of the Critical State Model* // Proceedings of the 7th Conference on Superconductivity and Applications, Buffalo, USA, 7-9 September 1994.
- [131] D.A. Komar'kov, A.A. Zhukov, J. Mirković / *Influence of magnetic field on I-V curve of $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ ceramics* // 7th International Workshop on Critical Currents in Superconductors, 24-27 Jan. 1994, Alpbach, Austria, #P3-28.
- [132] V.N. Nikiforov, J. Mirković, M.V. Kovachikova, A.V. Gribanov, Yu.D. Seropegin / *Electrical and magnetic properties of new rare earth intermetallic systems* // International Conference on Magnetism 1994, Warsaw, Poland, Aug. 22-26, 1994, Abstracts, p. 557.
- [133] V. N. Nikiforov, J. Mirković, Yu.A. Koksharov, M.V. Kovachikova, Yu.V. Kochelkov and Yu.D. Seropegin / *New ternary intermetallic Yb compounds: resistivity and magnetic susceptibility studies* // International Conference on Magnetism 1994, Warsaw, Poland, Aug. 22-26, Abstracts, p. 557.
- [134] V. N. Nikiforov, J.M. Barakatova, Yu.D. Seropegin, Yu.V. Kochelkov, J. Mirković, M.V. Kovachikova, A.V. Gribanov and O.I. Bodak / *Electrical and Magnetic Properties of $(\text{Ce}, \text{Sm})_2\text{Pd}_{20}(\text{Si}, \text{Ge})_8$* // Seventh International Conference on Solid Compounds of Transition Elements, Wrocław, Poland, July 5-8, 1994, Abstracts, p. 90.
- [135] L.M. Fisher, J. Mirković, I.F. Voloshin / *Critical Current Anisotropy in Meli-textured YBCO Superconductors* // Proc. of XXX Low Temperature Conference, 6-8 Sept. 1994, Dubna, Russia, Vol. 1, p. 66.
- [136] A.A. Velikhovskii, V.N. Nikiforov, J. Mirković, V. Kovachik, M. Baran, H. Szymczak A.V. Gribanov and Yu.D. Seropegin / *Magnetic Properties of the New Ternary Cerium Intermetallic Compound CeRu_5* // 5th European Magnetic Materials and Application Conference, (EMMA'93), Koshice, Slovak Republic, 24-27 Aug. 1993.
- [137] V.N. Nikiforov, A.A. Velikhovskii, V. Kovachik, J. Mirković, M. Baran, H. Szymczak / *Transport and Magnetic Properties of the New Ternary Ce-Pr-Ge compounds* // 5th European Magnetic Materials and Application Conference, EMMA93, Koshice, Slovak Republic, 24-27 August 1993 (EMMA93).
- [138] D.A. Komar'kov, A.A. Zhukov, J.V. Mirković / *Current-Voltage Characteristics of $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{7-x}$ ceramic superconductor* // XX International Conference on Low Temperature Physics, Aug. 4-11 1993, Eugen, Oregon, USA, #L9-5.
- [139] D.A. Komar'kov, A.A. Zhukov, J. Mirković / *Current-Voltage Characteristics between 10^{-4} - 10^{-1} V/cm Measured on High-Tc Ceramics Rings* // Proceedings of European Conference on Applied Superconductivity (EUCAS '93), Göttingen, Germany, Oct. 4 - 9 (1993), Applied Superconductivity, Vol. 1, p. 803.
- [140] V.N. Nikiforov, V. Kovachik, A.A. Velikhovskii, J. Mirković, I.D. Grischenko, B.A. Shapiev, O.I. Bodak and Yu.D. Seropegin / *Transport and magnetic properties of the new ternary compound CeRuSi_2 at low temperatures* // International Conference on Strong Correlated Electronic Systems -92, Sendai, Japan, 7-11 Sept 1992.
- [141] A.A. Zhukov, D.A. Komar'kov, J. Mirković / *Critical Currents Relaxation in Bi-based Ceramic Superconductors* // International Conference on Critical Currents in High-Tc Superconductors, 22-24 April 1992, Vienna, Austria.
- [142] A.A. Zhukov, D.A. Komar'kov, J. Mirković, V.P. Shabatlin, V.V. Palachev and A.A. Bush / *Critical Currents in Granular Bi-based Superconductors* // Proc. of Int. Workshop on Chemistry and Technology of High-Temperature Superconductors (MSU-HTSC II), Moscow, USSR, Oct. 14-18, 1991, Vol. 32, p. 33.

National scientific conferences:

- [1] Kulača Buro, **Jovan Mirković**, Mr. Sandra Tinaj: "Research and Development and Innovation Activities in Montenegro", XVI Scientific conference: "Technology, culture and development: The Western Balkans Countries on Their Way to the European Union, Conference proceeding, ed. Vlastimir Matejić, publishers: NGO «Technology and Society», Mihajlo Pupin Institute, and Faculty of Economics Subotica, pp. 295-303, ISBN 978-86-904137-9-9, COBISS.SR-ID 181574924, UDK 378.014.5(082) 005.94(082), Tivat, Montenegro, September 1-3, 2010.
- [2] **J. Mirković**, K. Murata, H. Satou, T. Yamamoto, I. Kakeya, K. Kadowaki, S. Saveljev, and F. Noni // *Study of vortex state Vortex Matter in Layered BiSr₂CaCu₂O₈ Superconductors* // Contemporary mathematics, physics and biology, Proceedings of the Workshop devoted to 25th Anniversary of the Faculty of Natural Sciences and Mathematics, 8-9 September, 2005, Podgorica, Yugoslavia.

PhD Dissertation:

"Experimental study of static and low-frequent electromagnetic properties of ceramic and melted high-temperature superconductors.", Moscow State University "M.V. Lomonosov", Russia, 1996.

Annex 2

Jovan Mirkovic

List of projects:

- „Superconducting Nanotechnologies“, Ministry of Science, Montenegro, 2018-2019
- Youth Science Forum / Debate Science – HORIZON2020 / 2018-2020
- "Nanoscale Coherent Hybrid Devices for Superconducting Quantum Technologies" (NANOCOHYBRI) CA16218, 2017-2020
- „Physics of Nanostructures“, Ministry of Science, Montenegro, 2013-2016
- Physical properties of layered superconductors“, Ministry of Science, Montenegro, 2008-2011.
- "Montenegro in XXI Century - in the Era of Competitiveness: Science and Technology", Coordinator, Montenegrin Academy of Sciences and Arts, Podgorica 2009-10.
- „Science and Youth“, Montenegrin Science Promotion Foundation PRONA, 2009
- Science Festival - Researchers' Night 2009-2015, Podgorica, Montenegro (Program Director)
- Summer Physics School 2008 - 2010; Summer School of Physics and Mathematics 2011, Ivanova Korita (Program Coordinator)
- Winter Science School 2009 - 2012 (Coordinator)
- Summer School Planet In Your Hands 2011-2013
- Inquiry based science education methods program, 2011
- Students Impact on Quality Assurance of High Education in Montenegro, 2009-10
- „Science and Youth“, Montenegrin Science Promotion Foundation PRONA, 2009
- „Theoretical and experimental investigation of thermodynamic and transport properties of superconductors“, Ministry of Education and Science“, Montenegro, 2005-2007
- „Introduction to Experimental Physics“, Course development program (CDP+), WUS-Austria, 2004
- Multidisciplinary Centre for Experimental Study, World University Service - Austria, 2003.